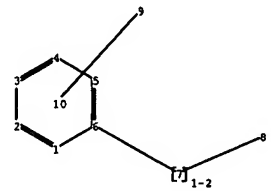
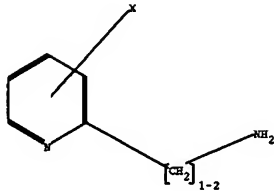


၁။ မြန်မာနိုင်ငံတော် အစိုးရ၏ အမိန့်ဖြင့် ပြုစုထားသော  
 နယ်ပယ်စာရွက်စာတမ်းများကို အောက်ဖော်ပြပါအတိုင်း  
 အသုံးပြုနိုင်ပါသည်။



ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

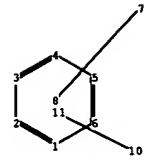
ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

ကုမ္ပဏီ၏ အမည်ကို  
 အောက်ဖော်ပြပါအတိုင်း

The chemical structure shows a five-membered pyrrolidine ring. The nitrogen atom is at the bottom vertex. The carbon atom to the right of the nitrogen is substituted with a cyano group (CN). The carbon atom at the top of the ring is substituted with a group labeled 'X'.

[illegible]

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 JAN 17 Pre-1988 INPI data added to MARPAT  
NEWS 4 FEB 21 STN AnaVist, Version 1.1, lets you share your STN AnaVist  
 visualization results  
NEWS 5 FEB 22 The IPC thesaurus added to additional patent databases on STN  
NEWS 6 FEB 22 Updates in EPFULL; IPC 8 enhancements added  
NEWS 7 FEB 27 New STN AnaVist pricing effective March 1, 2006  
NEWS 8 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes  
NEWS 9 MAR 08 X.25 communication option no longer available after June 2006  
NEWS 10 MAR 22 EMBASE is now updated on a daily basis  
NEWS 11 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL  
NEWS 12 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC  
 thesaurus added in PCTFULL  
NEWS 13 APR 04 STN AnaVist \$500 visualization usage credit offered  
NEWS 14 APR 12 LINSPEC, learning database for INSPEC, reloaded and enhanced  
NEWS 15 APR 12 Improved structure highlighting in FQHIT and QHIT display  
 in MARPAT  
NEWS 16 APR 12 Derwent World Patents Index to be reloaded and enhanced during  
 second quarter; strategies may be affected  
NEWS 17 MAY 10 CA/CAPLUS enhanced with 1900-1906 U.S. patent records  
NEWS 18 MAY 11 KOREAPAT updates resume

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,  
 CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
 AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.  
 V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT  
<http://download.cas.org/express/v8.0-Discover/>

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \*

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In an effort to enhance your experience with STN, we would like to better understand what you find useful. Please take approximately 5 minutes to complete a web survey.

If you provide us with your name, login ID, and e-mail address, you will be entered in a drawing to win a free iPod(R). Your responses will be kept confidential and will help us make future improvements to STN.

Take survey: <http://www.zoomerang.com/survey.zqi?p=WEB2259HNKWTUW>

Thank you in advance for your participation.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

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STRUCTURE FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6

DICTIONARY FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6

New CAS Information Use Policies, enter [HELP USAGETERMS](#) for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*  
 \*  
 \* The CA roles and document type information have been removed from \*  
 \* the IDE default display format and the ED field has been added, \*  
 \* effective March 20, 2005. A new display format, IDERL, is now \*  
 \* available and contains the CA role and document type information. \*  
 \*  
 \*\*\*\*\*

Structure search iteration limits have been increased. See [HELP SLIMITS](#) for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

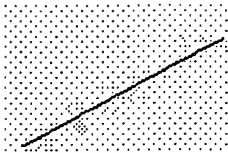
Uploading structure

L1 STRUCTURE UPLOADED

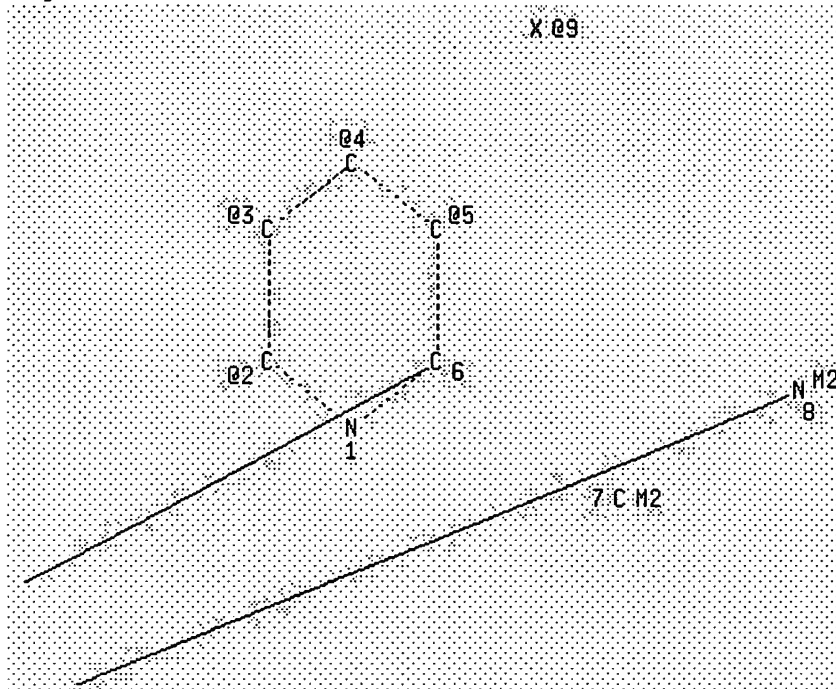
=> d l1

L1 HAS NO ANSWERS

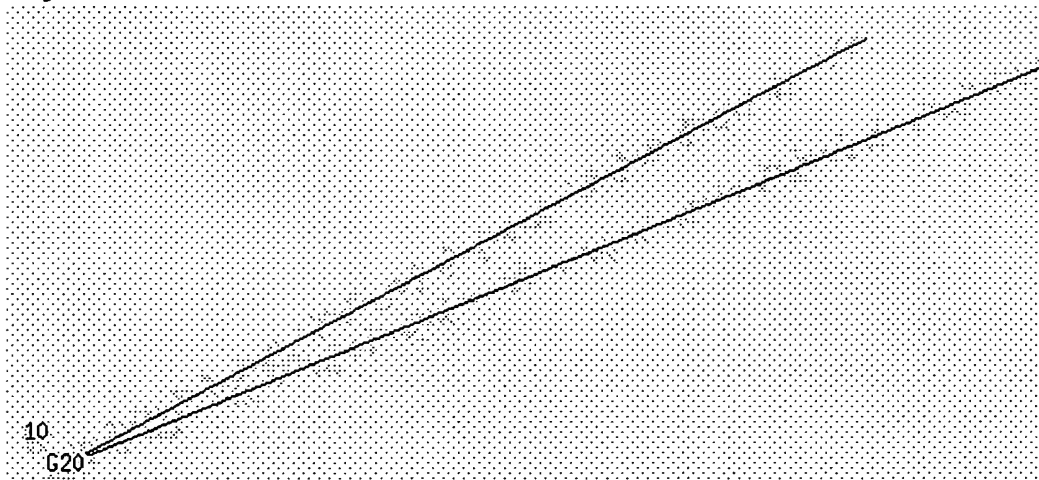
L1 STR



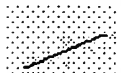
Page 1-A



Page 1-B



Page 2-A



Page 2-B

REP G20=(1-2) 7-6 7-8

VPA 9-2/3/4/5 S

NODE ATTRIBUTES:

HCOUNT	IS	M2	AT	7
HCOUNT	IS	M2	AT	8
NSPEC	IS	R	AT	1
NSPEC	IS	R	AT	2
NSPEC	IS	R	AT	3
NSPEC	IS	R	AT	4
NSPEC	IS	R	AT	5

NSPEC IS R AT 6  
 NSPEC IS C AT 7  
 NSPEC IS C AT 8  
 NSPEC IS C AT 9  
 NSPEC IS C AT 10  
 DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 7 8 9  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I  
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

=> \$ l1

SAMPLE SEARCH INITIATED 14:52:44 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 6687 TO ITERATE

29.9% PROCESSED 2000 ITERATIONS 0 ANSWERS  
 INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS: 128838 TO 138642  
 PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> \$ l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 166.50 U.S. DOLLARS  
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y  
 FULL SEARCH INITIATED 14:52:52 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 133446 TO ITERATE

100.0% PROCESSED 133446 ITERATIONS 64 ANSWERS  
 SEARCH TIME: 00.00.01

L3 64 SEA SSS FUL L1

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	167.82	168.03

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006  
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FILE COVERS 1907 - 15 May 2006 VOL 144 ISS 21  
FILE LAST UPDATED: 14 May 2006 (20060514/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l3/prop
      82 L3.
      3467316 PREP/RL
L4      56 L3/PREP
          (L3 (L) PREP/RL)
```

```
=> file reg
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                2.53      170.56
```

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006  
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STRUCTURE FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6  
DICTIONARY FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/reqprops.html>

=>

Uploading structure

L5           STRUCTURE UPLOADED

=> 15

L5 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s 15

SAMPLE SEARCH INITIATED 14:54:03 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -       8693 TO ITERATE

23.0% PROCESSED       2000 ITERATIONS                   19 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:   ONLINE   \*\*COMPLETE\*\*  
                          BATCH    \*\*COMPLETE\*\*

PROJECTED ITERATIONS:       168272 TO   179448

PROJECTED ANSWERS:           1106 TO       2196

L6           19 SEA SSS SAM L5

=> s 15 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 166.50 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 14:54:08 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -   173695 TO ITERATE

100.0% PROCESSED   173695 ITERATIONS                   1726 ANSWERS  
SEARCH TIME: 00.00.01

L7           1726 SEA SSS FUL L5

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	167.38	337.94

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

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FILE COVERS 1907 - 15 May 2006 VOL 144 ISS 21

FILE LAST UPDATED: 14 May 2006 (20060514/ED)



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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 17/rct
      1311 L7
      2847898 RCT/RL
L8      983 L7/RCT
      (L7 (L) RCT/RL)
```

```
=> file hcaplus
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                2.53      340.47
```

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006  
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 FILE LAST UPDATED: 14 May 2006 (20060514/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s 18/rct
FIELD CODES CANNOT BE CHANGED HERE
You may have tried to apply a field code to a term that already has a
field code. You can only add a field code to a term that has no field
code appended to it.
```

```
=> file reg
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                2.53      343.00
```

FILE 'REGISTRY' ENTERED AT 14:54:31 ON 15 MAY 2006  
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STRUCTURE FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6

DICTIONARY FILE UPDATES: 14 MAY 2006 HIGHEST RN 884198-07-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d his

(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

```
L1          STRUCTURE UPLOADED
L2          0 S L1
L3          64 S L1 FULL
```

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006

```
L4          56 S L3/PREP
```

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006

```
L5          STRUCTURE UPLOADED
L6          19 S L5
L7          1726 S L5 FULL
```

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

```
L8          983 S L7/RCT
```

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006

FILE 'REGISTRY' ENTERED AT 14:54:31 ON 15 MAY 2006

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.44

343.44

FILE 'HCAPLUS' ENTERED AT 14:54:37 ON 15 MAY 2006

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FILE COVERS 1907 - 15 May 2006 VOL 144 ISS 21  
FILE LAST UPDATED: 14 May 2006 (20060514/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

L1 STRUCTURE UPLOADED  
L2 0 S L1  
L3 64 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006

L4 56 S L3/PREP

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006

L5 STRUCTURE UPLOADED  
L6 19 S L5  
L7 1726 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

L8 983 S L7/RCT

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006

FILE 'REGISTRY' ENTERED AT 14:54:31 ON 15 MAY 2006

FILE 'HCAPLUS' ENTERED AT 14:54:37 ON 15 MAY 2006

=> s l8 and l4

L9 30 L8 AND L4

=> s l9 and vangelisti, m?/au

3 VANGELISTI, M?/AU  
L10 1 L9 AND VANGELISTI, M?/AU

=> d l10, ibib abs hitstr, 1

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

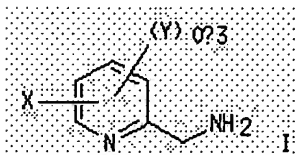
Full  
Text

Citing  
References

ACCESSION NUMBER: 2004:427623 HCAPLUS

DOCUMENT NUMBER: 141:7024  
 TITLE: A novel process for the preparation of  
 2-aminomethylpyridine derivatives via Ni-catalized  
 hydrogenation of 2-cyanopyridine derivatives  
 INVENTOR(S): Vangelisti, Manuel  
 PATENT ASSIGNEE(S): Bayer Cropscience Sa, Fr.  
 SOURCE: Eur. Pat. Appl., 6 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1422221	A1	20040526	EP 2002-356236	20021120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
WO 2004046114	A1	20040603	WO 2003-EP14892	20031118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003290121	A1	20040615	AU 2003-290121	20031118
BR 2003014461	A	20050726	BR 2003-14461	20031118
EP 1565440	A1	20050824	EP 2003-782483	20031118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508143	T2	20060309	JP 2004-552709	20031118
US 2006004206	A1	20060105	US 2005-535723	20050520
<u>PRIORITY APPLN. INFO.:</u>				
			EP 2002-356236	A 20021120
			WO 2003-EP14892	W 20031118
OTHER SOURCE(S): CASREACT 141:7024; MARPAT 141:7024				
GI				



AB The invention relates to a process for the prepn. of 2-aminomethylpyridine derivs. of formula I [wherein: X is halogen atom; each Y may be the same or different and may be a halogen atom, a halogenoalkyl, an alkoxy carbonyl or an alkylsulfonyl], useful as intermediates for prepn. of pesticides. 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine was prepd. via Raney Ni-catalized hydrogenation of 2-cyano-3-chloro-5-trifluoromethylpyridine with a yield of 97%. The advantages of the proposed prepn. of 2-aminomethylpyridine derivs. include the use of Raney nickel catalyst instead of expensive Pd catalyst (the Pd-catalyzed hydrogenation suffers from the disadvantage of dehalogenation reaction; Pd is also very sensitive to catalysts poisons).

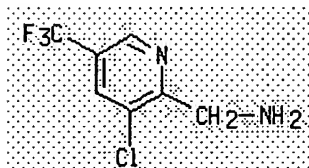
IT 175277-74-4P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP**  
**(Preparation)**

(novel process for the prepn. of aminomethylpyridine derivs. via Raney  
 Ni-catalyzed hydrogenation of cyanopyridine derivs.)

RN 175277-74-4 HCAPLUS

CN 2-Pyridinemethanamine, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX  
 NAME)



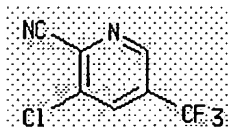
IT 80194-70-3

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(reactant; novel process for the prepn. of aminomethylpyridine derivs.  
 via Raney Ni-catalyzed hydrogenation of cyanopyridine derivs.)

RN 80194-70-3 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX  
 NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 64 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006

L4 56 S L3/PREP

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006

L5 STRUCTURE UPLOADED

L6 19 S L5

L7 1726 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

L8 983 S L7/RCT

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006

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FILE 'HCAPLUS' ENTERED AT 14:54:37 ON 15 MAY 2006

L9 30 S L8 AND L4

L10 1 S L9 AND VANGELISTI, M?/AU

=> s 19 not 110  
L11 29 L9 NOT L10

=> d 111, ibib abs hitstr, 1-29

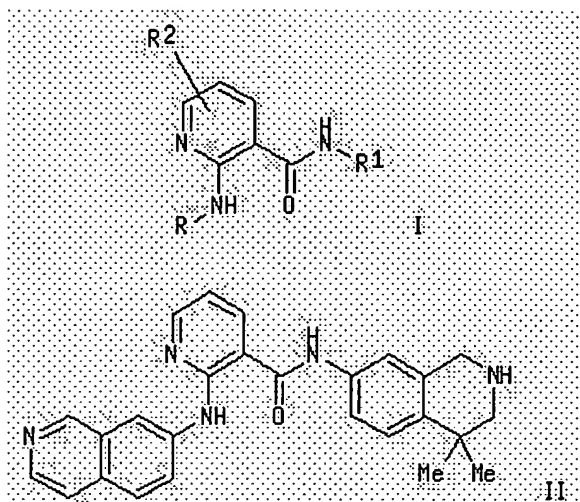
L11 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

Full  
References

ACCESSION NUMBER: 2006:104503 HCAPLUS  
DOCUMENT NUMBER: 144:192119  
TITLE: Preparation of substituted arylamine derivatives,  
particularly 2-aminonicotinamides, as antitumor agents  
INVENTOR(S): Yuan, Chester Chenguang; Yang, Kevin; Vanderplas,  
Simon; Riahi, Babak; Potashman, Michele; Patel, Vinod  
F.; Nomak, Rana; Li, Aiwen; Huang, Qi; Harmange,  
Jean-Christophe; Askew, Benny C., Jr.  
PATENT ASSIGNEE(S): Amgen Inc., USA  
SOURCE: PCT Int. Appl., 351 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2006012374</u>	A1	20060202	<u>WO 2005-US25800</u>	20050720
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<u>US 2006040966</u>	A1	20060223	<u>US 2005-185556</u>	20050719
PRIORITY APPLN. INFO.:			<u>US 2004-590544P</u>	P 20040722
			<u>US 2005-185556</u>	A2 20050719
OTHER SOURCE(S):	MARPAT	144:192119		
GI				



AB Title compds. I [R = (un)substituted 9- or 10-membered heterocyclyl selected from 7-isoquinolinyl, 1-oxo-2,3-dihydrobenzofuran-4-yl, 1,6-naphthyridin-3-yl, etc.; R1 = (un)substituted Ph, 5-6 membered heteroaryl, 9-10 membered bicyclic heterocyclyl, 11-14 membered tricyclic heterocyclyl; R2 = H, halo, halo/alkyl], and their analogs, and their pharmaceutically acceptable derivs., are prepd. and disclosed as agents effective for treatment of angiogenesis and related diseases such as cancer. Thus, acylation of 7-amino-4,4-dimethyl-3,4-dihydro-1H-isoquinoline-2-carboxylic acid tert-Bu ester with 2-chloropyridine-3-carbonyl chloride, followed by amination of the chloride intermediate (no data) with 7-aminoisoquinoline and deprotection gave amide II·HCl. Selected I inhibited VEGF-stimulated HUVEC proliferation at a level below 1  $\mu$ M. In the tumor model, I are active at doses less than 150 mpk.

IT 97509-75-6P 312904-51-1P 561297-96-9P

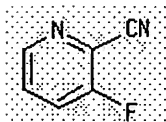
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(prepn. of substituted aminonicotinamides as antitumor agents)

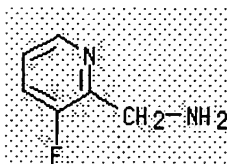
RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



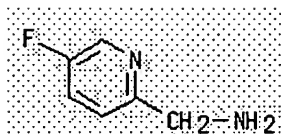
RN 312904-51-1 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro- (9CI) (CA INDEX NAME)



RN 561297-96-9 HCAPLUS

CN 2-Pyridinemethanamine, 5-fluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

Citing  
References

ACCESSION NUMBER: 2005:1331127 HCAPLUS

DOCUMENT NUMBER: 144:69727

TITLE: Preparation of tartaric acid functional compounds for the treatment of inflammatory disorders

INVENTOR(S): Guo, Zhuyan; Orth, Peter; Zhu, Zhaoning; Mazzola, Robert D.; Chan, Tin Yau; Vaccaro, Henry A.; McKittrick, Brian; Kozlowski, Joseph A.; Lavey, Brian J.; Zhou, Guowei; Paliwal, Sunil; Wong, Shing-Chun; Shih, Neng-Yang; Ting, Pauline C.; Rosner, Kristin E.; Shipps, Gerald W. Jr.; Siddiqui, M. Arshad; Belanger, David B.; Dai, Chaoyang; Li, Dansu; Girijavallabhan, Vinay M.; Popovici-Muller, Janeta; Yu, Wensheng; Zhao, Lianyun

PATENT ASSIGNEE(S): Schering Corporation, USA

SOURCE: PCT Int. Appl., 889 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

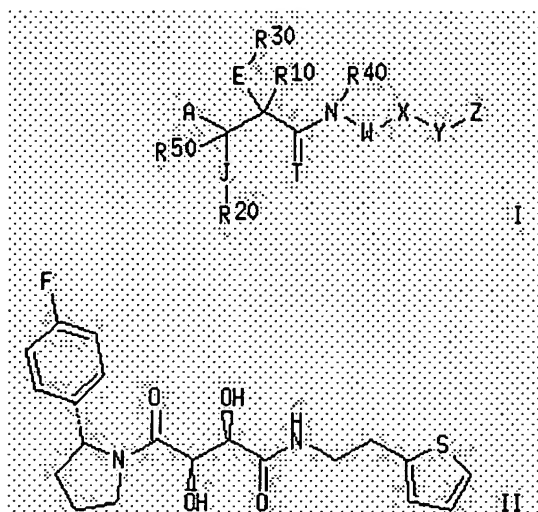
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2005121130</u>	A2	20051222	<u>WO 2005-US19131</u>	20050601
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PRIORITY APPLN. INFO.: US 2004-576153P P 20040602

OTHER SOURCE(S): MARPAT 144:69727

GI





AB The title compds. I [A = (un)substituted benzimidazol-2-yl, imidazol-2-yl, CONH<sub>2</sub>, CSNH<sub>2</sub>; J, E = O, S, NR<sub>5</sub> (wherein R<sub>5</sub> = H, alkyl, alkylaryl); T = O, S; R<sub>10</sub>, R<sub>20</sub> = H, alkyl, fluoroalkyl; R<sub>30</sub> = H, alkyl or R<sub>30</sub> and R<sub>40</sub>, taken together with N to which R<sub>40</sub> is attached, are joined to form 4-7 membered (un)substituted heterocyclyl; R<sub>40</sub>, R<sub>50</sub> = H, alkyl; W = [C(R<sub>13</sub>)<sub>2</sub>]<sub>n</sub> (wherein n = 0-5; R<sub>13</sub> = H, halo, OH, etc.); X = a bond, alkyl, cycloalkyl, etc.; Y = a bond, O, S, NH, etc.; Z = H, alkyl, aryl, etc.; or their pharmaceutically acceptable salts] which can be useful for the treatment of diseases or conditions mediated by MMPs, ADAMs, TACE, TNF- $\alpha$  or combinations thereof, were prepd. E.g., a multi-step synthesis of II, starting from 2,2-dimethyl-[1,3]dioxolane-4R,5R-dicarboxylic acid monomethyl ester and 2-(thien-1-yl)ethylamine, was given. The compds. I were tested against TACE (biol. data given for representative compds. I).

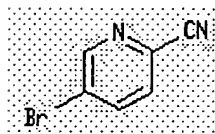
IT 97483-77-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of tartaric acid functional compds. for the treatment of inflammatory disorders)

RN 97483-77-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-bromo- (9CI) (CA INDEX NAME)



IT 173999-23-0P 871728-50-6P 871728-53-9P

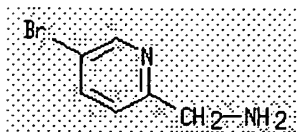
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(prepn. of tartaric acid functional compds. for the treatment of inflammatory disorders)

RN 173999-23-0 HCAPLUS

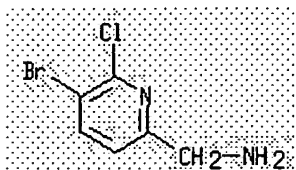
CN 2-Pyridinemethanamine, 5-bromo- (9CI) (CA INDEX NAME)



RN 871728-50-6 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro-5-[2-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)

CN 2-Pyridinemethanamine, 5-bromo-6-chloro- (9CI) (CA INDEX NAME)

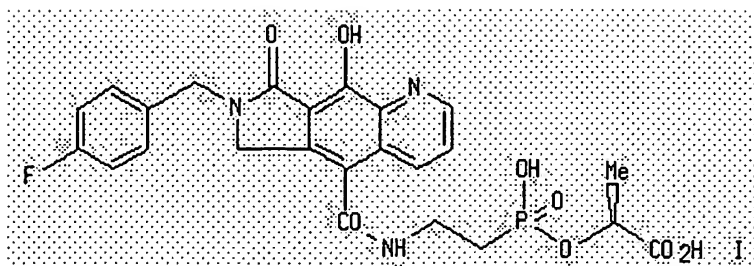


Full  
Text

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2005117904</u>	A2	20051215	<u>WO 2005-US12520</u>	20050411
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

GI



AB Novel HIV integrase inhibitor compds. having at least one phosphonate group (e.g. (S)-2-[[[2-[[[7-(4-fluorobenzyl)-9-hydroxy-8-oxo-7,8-dihydro-6H-pyrrolo[3,4-g]quinolin-5-yl]carbonyl]amino]ethyl](hydroxy)phosphinoyl]oxy]propionic acid (shown as I)), protected intermediates thereof, and methods for inhibition of HIV-integrase are disclosed. The inhibitors comprise ?1 covalently attached A0 groups [A0 = -[Y2[C(Ry)2]M12a]M12b-Y2-W6, -[Y2[C(Ry)2]M12a]M12b-Y2-W3 or -[Y2[C(Ry)2]M12a]M12b-P(:Y1)[Y2[P(:Y1)(Y2-Rx)Y2]M2-Rx]2]; ?1 A0 group is an A1 group. In the A0 groups: Y1 = O, S, NRx, N(O)(Rx), N(ORx), N(O)(ORx), or N(N(Rx)2); Y2 = a bond, O, NRx, N(O)(Rx), N(ORx), N(O)(ORx), N(N(Rx)2), S(O) (sulfoxide), S(O)2 (sulfone), S (sulfide), or S-S (disulfide); M2 is 0-2; M12a = 1-12; and M12b = 0-12; Ry = H, C1-C18 (un)substituted alkyl, C2-C18 (un)substituted alkenyl, C2-C18 (un)substituted alkynyl, C6-C20 (un)substituted aryl, or a protecting group, or where taken together at a C atom, two vicinal Ry groups form a carbocycle or a heterocycle; or taken together at a C atom, two vicinal Ry groups form a ring; such as, cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl; or the ring may contain ?1 heteroatoms forming a heterocyclic ring such as, piperazinyl, piperidinyl, pyranyl, or tetrahydrofuryl. Rx = H, C1-C18 (un)substituted alkyl, C2-C18 (un)substituted alkenyl, C2-C18 (un)substituted alkynyl, C6-C20 (un)substituted aryl, a protecting group, or -[C(:Y1)Y2]M1a[C(Ry)2]M12c(Y2)M1c[C(:Y1)Y2]M1d-Ry; M1a, M1c, and M1d = 0 or 1, and M12c = 0-12; W3 is W4 or W5; W4 is R5, -C(Y1)R5, -C(Y1)W5, -SO2R5, or -SO2W5; W5 is a carbocycle or a heterocycle wherein W5 = substituted with 0 to 3 R2 groups; W3a is W4a or W5a; W4a is R5a, -C(Y1)R5a, -C(Y1)W5a, -SO2R5a, or -SO2W5a; W5a is a multivalent substituted carbocycle or heterocycle wherein W5a = substituted with 0 to 3 R2 groups; W6 is W3a independently substituted with 1, 2, or 3 A3 groups; addnl. details including provisos are given in the claims. They are nucleoside and non-nucleoside reverse transcriptase inhibitors, esp. HIV integrase inhibitors. For example, I was prepd. (60%) by base hydrolysis of the Et/Ph diester, which was prepd. by deprotection of the diphenylmethyl ether, which was prepd. by amide formation between (S)-2-[(2-aminoethyl)(phenoxy)phosphinoyl]oxy]propionic acid Et ester (prepn. given) and 9-benzhydryloxy-7-(4-fluorobenzyl)-8-oxo-7,8-dihydro-6H-pyrrolo[3,4-g]quinoline-5-carboxylic acid (prepn. given) using HATU and DIEA in DMF. Certain compds. of the invention inhibited viral prodn., viral infectivity, or virus-induced cytopathic effect in HIV-infected MT-2 cells with EC50 < 10 µM and exhibited cytotoxicity toward uninfected MT-2 cells with CC50 < 10 µM. Thus, I, prodrugs of I, and their pharmaceutical compns. are useful as anti-AIDS agents, anti-infective agents, and immunomodulators (no data).

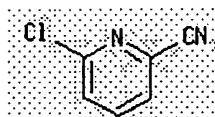
IT 33252-29-8P, 6-Chloropyridine-2-carbonitrile 188637-75-4P  
312904-51-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of pyrroloquinoline and other phosphonate analogs of HIV-integrase inhibitors as anti-AIDS agents)

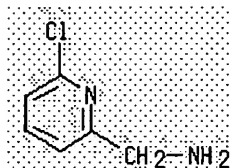
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CN 2-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME)



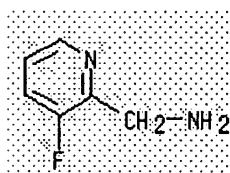
RN 188637-75-4 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro- (9CI) (CA INDEX NAME)



RN 312904-51-1 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro- (9CI) (CA INDEX NAME)



L11 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text    Citing References

ACCESSION NUMBER: 2005:1265299 HCAPLUS

DOCUMENT NUMBER: 144:22939

TITLE: Preparation of bicyclic heterocycles, particularly pyrimido[2,1-c][1,4]oxazine-2-carboxamides, as HIV integrase inhibitors

INVENTOR(S): Naidu, B. Narasimhulu; Banville, Jacques; Beaulieu, Francis; Connolly, Timothy P.; Krystal, Mark R.; Matiskella, John D.; Ouellet, Carl; Plamondon, Serge; Remillard, Roger; Sorenson, Margaret E.; Ueda, Yasutsugu; Walker, Michael A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 156 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005267105	A1	20051201	US 2005-126891	20050511
WO 2005118593	A1	20051215	WO 2005-US16473	20050512

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US 2005267132	A1	20051201	US 2005-138726	20050526
US 2005267131	A1	20051201	US 2005-138773	20050526
WO 2005118589	A1	20051215	WO 2005-US18567	20050527

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WO 2005118590	A1	20051215	WO 2005-US18568	20050527
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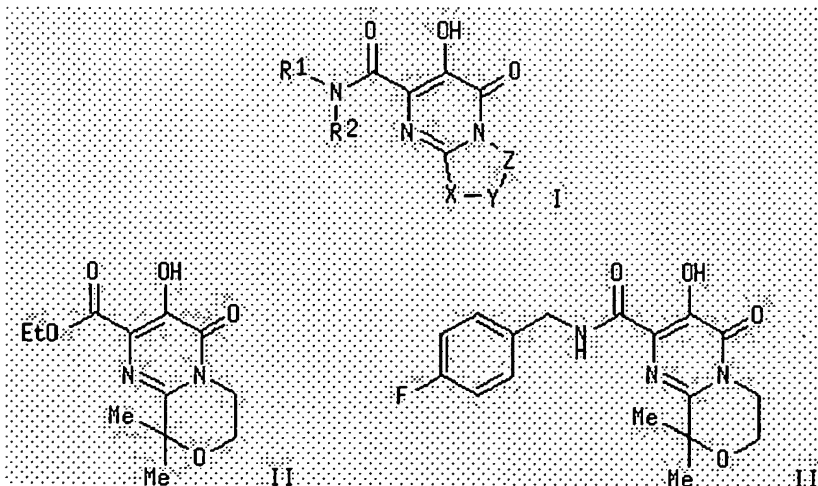
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PRIORITY APPLN. INFO.:

US 2004-575513P	P	20040528
US 2004-603371P	P	20040820
US 2005-126891	A	20050511
US 2005-138726	A	20050526
US 2005-138773	A	20050526

OTHER SOURCE(S): MARPAT 144:22939  
 GI

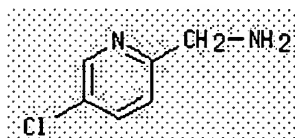


AB The invention is related to the prepn. of title compds. I [R1 = C1-6(Ar1)alkyl, C1-6(Ar1)oxyalkyl, C1-6(Ar1)hydroxyalkyl, etc.; R2 = H, alkyl, OH, alkyloxy; Ar1 = (un)substituted Ph, naphthyl, benzothiophenyl, etc.; X-Y-Z = C(R3)2OC(R3)2, C(R3)2OC(R3)2C(R3)2, C(R3)2C(R3)2C(R3)2C(R3)2; R3 = H, alkyl], and their pharmaceutically acceptable salts or solvates which inhibit HIV integrase and prevent viral integration into human DNA. The invention is also related to the pharmaceutical compns. comprising pyrimidinones I, and methods of using them for treating HIV infection and AIDS. Thus, reacting ester II (prepn. given) with 4-fluorobenzylamine in DMF/ethanol in the presence of TEA at 90° gave amide III in 82% yield. Selected I displayed IC50 values in the range of 0.002-0.1 µM for the inhibition of HIV integrase activity. II demonstrated synergistic or additive-synergistic HIV antiviral activity when used in combination with other antiviral agents, e.g., zidovudine, indinavir, T-20, etc.

IT 67938-76-5P, (5-Chloropyridin-2-yl)methanamine  
870562-68-8P, (3,5-Difluoropyridin-2-yl)methanamine hydrochloride  
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**  
 (**Preparation**); RACT (Reactant or reagent)  
 (intermediate; prepn. of bicyclic heterocycles as HIV integrase inhibitors)

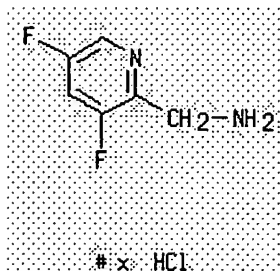
RN 67938-76-5 HCAPLUS

CN 2-Pyridinemethanamine, 5-chloro- (9CI) (CA INDEX NAME)



RN 870562-68-8 HCAPLUS

CN 2-Pyridinemethanamine, 3,5-difluoro-, hydrochloride (9CI) (CA INDEX NAME)

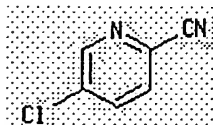


IT 89809-64-3 298709-29-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of bicyclic heterocycles as HIV integrase inhibitors)

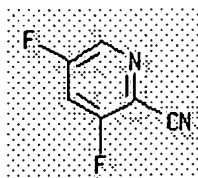
RN 89809-64-3 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-chloro- (9CI) (CA INDEX NAME)



RN 298709-29-2 HCAPLUS

CN 2-Pyridinecarbonitrile, 3,5-difluoro- (9CI) (CA INDEX NAME)



L11 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Citing References
--------------	----------------------

ACCESSION NUMBER: 2005:1042217 HCAPLUS  
 DOCUMENT NUMBER: 143:325976  
 TITLE: Diaminoalcohols as renin inhibitors, their preparation and pharmaceutical compositions  
 INVENTOR(S): Herold, Peter; Stutz, Stefan; Mah, Robert; Tschinke, Vincenzo; Stojanovic, Aleksandar; Jotterand, Nathalie; Quirnbach, Michael; Behnke, Dirk; Marti, Christiane  
 PATENT ASSIGNEE(S): Speedel Experimenta A.-G., Switz.  
 SOURCE: PCT Int. Appl., 88 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005090304	A1	20050929	WO 2005-EP51241	20050317
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: CH 2004-479 A 20040319  
 OTHER SOURCE(S): MARPAT 143:325976  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to diaminoalcs. I, which are renin inhibitors. In compds. I, X is methylene or hydroxymethylene; R1 is H, (un)substituted C1-8 alkyl, (un)substituted C3-8 cycloalkyl, (un)substituted C1-8 alkanoyl, (un)substituted C1-8 alkoxy carbonyl, aryl-C0-4alkyl, or heterocyclyl-C0-4alkyl; R2 is (un)substituted C1-8 alkyl, (un)substituted C3-8 cycloalkyl, (un)substituted C1-8 alkanoyl, etc., or R1 and R2, together with the nitrogen atom to which they are bonded, form a satd. or partly unsatd. 4- to 8-membered heterocyclic ring; R3 and R4 are independently selected from H, C1-4 alkyl, C1-8 alkoxy carbonyl, and C1-8 alkanoyl; R5 are independently selected from H, C1-8 alkyl, or together with the carbon atom to which they are bonded, form a C3-8 cycloalkylene; and R6 is (un)substituted heterocyclyl or (un)substituted polycyclic,

unsatd. hydrocarbon; including salts or prodrugs thereof, or in which one or more atoms have been replaced by their stable, non-radioactive isotopes. The invention also relates to the prepn. of I, pharmaceutical compns. contg. compd. I as an active pharmaceutical ingredient, in free form or as a pharmaceutically usable salt, as well as to the use of the compns. as renin inhibitors, including in combination with other pharmaceutical agents. Substitution of 1-bromo-2-methoxyethane with Me 8-hydroxynaphthalene-2-carboxylate followed by hydride redn., bromination, and substitution with (R)-4-benzyl-3-(3-methylbutyryl)oxazolidin-2-one resulted in the formation of II. Cleavage of the chiral auxiliary from II, borane redn., bromination, substitution with 3,6-diethoxy-2,5-dihydropyrazine, hydrolysis, and N-protection gave amino acid III. The ester functionality of III was reduced to the alc., followed by oxidn. to the aldehyde, epoxidn. with trimethylsulfoxonium iodide, ring opening with piperidine, and deprotection to give the dihydrochloride of diaminoalc. IV. The compds. of the invention act as renin inhibitors (no data).

IT 865156-50-9P, [(4-Bromopyridin-2-yl)methyl]amine

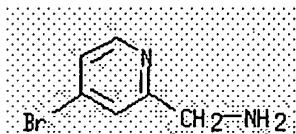
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(**Preparation**); RACT (Reactant or reagent)

(intermediate; prepn. of diaminoalcs. as renin inhibitors)

RN 865156-50-9 HCAPLUS

CN 2-Pyridinemethanamine, 4-bromo- (9CI) (CA INDEX NAME)



IT 62150-45-2, 4-Bromopyridine-2-carbonitrile 97483-77-7,

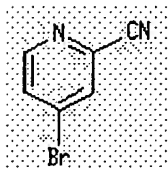
5-Bromopyridine-2-carbonitrile

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(starting material; prepn. of diaminoalcs. as renin inhibitors)

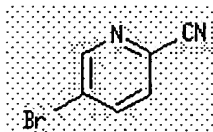
RN 62150-45-2 HCAPLUS

CN 2-Pyridinecarbonitrile, 4-bromo- (9CI) (CA INDEX NAME)



RN 97483-77-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-bromo- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text **Citing References**

ACCESSION NUMBER:

2005:979618 HCAPLUS

DOCUMENT NUMBER:

143:286301

TITLE:

Preparation of 6-substituted 2,3,4,5-tetrahydro-1H-benzo[d]azepines as 5-HT<sub>2c</sub> receptor agonists



INVENTOR(S): Allen, John Gordon; Briner, Karin; Cohen, Michael Philip; Galka, Christopher Stanley; Hellman, Sarah Lynne; Martinez-Grau, Maria Angeles; Reinhard, Matthew Robert; Rodriguez, Michael John; Rothhaar, Roger Ryan; Tidwell, Michael Wade; Victor, Frantz; Williams, Andrew Caerwyn; Zhang, Deyi; Boyd, Steven Armen; Conway, Richard Gerard; Deo, Arundhati S.; Lee, Wai-Man; Siedem, Christopher Stephen; Singh, Ajay

PATENT ASSIGNEE(S): Eli Lilly and Company, USA

SOURCE: PCT Int. Appl., 595 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

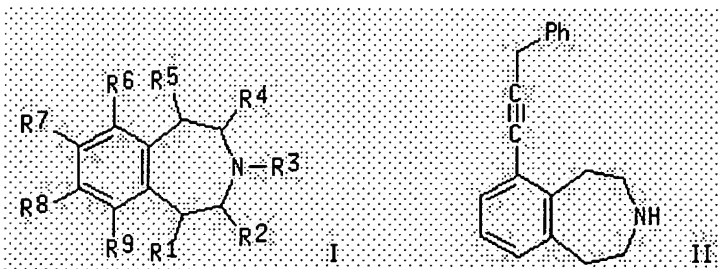
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005082859	A1	20050909	WO 2005-US5418	20050218
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW</p> <p>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p>				

PRIORITY APPLN. INFO.: US 2004-547681P P 20040225

OTHER SOURCE(S): MARPAT 143:286301

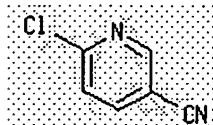
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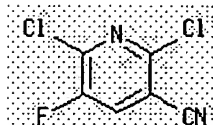
AB The title compds. I [R1 = H, F, alkyl; R2-R4 = H, Me, Et; R5 = H, F, Me, Et; R6 = C<sup>7</sup>CR<sup>10</sup>, OR<sup>12</sup>, SR<sup>14</sup>, substituted NH<sub>2</sub>; R7 = H, halo, CN, etc.; R8 = H, halo, CN, SCF<sub>3</sub>; R9 = H, halo, CN, etc.; R10 = CF<sub>3</sub>, alkyl, fluoroalkyl, etc.; R12 = pyridylalkyl, thiazolylalkyl, etc.; R13 = cycloalkylalkyl, alkoxy, fluoroalkoxy, etc.; R14 = tetrahydropyranyl, tetrahydrofuranyl, etc.], useful as selective 5-HT<sub>2c</sub> receptor agonists for the treatment of 5-HT<sub>2c</sub> assocd. disorders including obesity, obsessive/compulsive disorder, depression, and anxiety, were prepd. Thus, reacting 3-tert-butoxycarbonyl-6-trifluoromethanesulfonyloxy-2,3,4,5-tetrahydro-1H-benzo[d]azepine (prepn. given) with 3-phenyl-1-propyne followed by deprotection afforded 85% II.HCl. Representative compds. I are found to have excellent affinity for the 5-HT<sub>2c</sub> receptor, with K<sub>i</sub>'s typically less than or equal to about 200 nM.

IT 33252-28-7 82671-02-1 97483-77-7RL: **RCT (Reactant)**; RACT (Reactant or reagent)(prepn. of 6-substituted 2,3,4,5-tetrahydro-1H-benzo[d]azepines as 5-HT<sub>2c</sub> receptor agonists)RN 33252-28-7 HCAPLUS

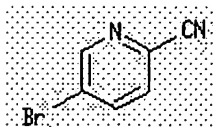
CN 3-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME).

RN 82671-02-1 HCAPLUS

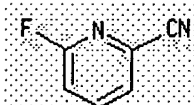
CN 3-Pyridinecarbonitrile, 2,6-dichloro-5-fluoro- (9CI) (CA INDEX NAME)

RN 97483-77-7 HCAPLUS

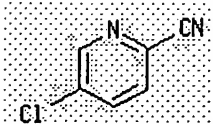
CN 2-Pyridinecarbonitrile, 5-bromo- (9CI) (CA INDEX NAME)

IT 3939-15-9P 89809-64-3P 97509-75-6P205744-18-9P 312904-49-7P 327056-62-2P561297-96-9PRL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP****(Preparation)**; RACT (Reactant or reagent)(prepn. of 6-substituted 2,3,4,5-tetrahydro-1H-benzo[d]azepines as 5-HT<sub>2c</sub> receptor agonists)RN 3939-15-9 HCAPLUS

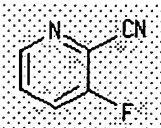
CN 2-Pyridinecarbonitrile, 6-fluoro- (9CI) (CA INDEX NAME)

RN 89809-64-3 HCAPLUS

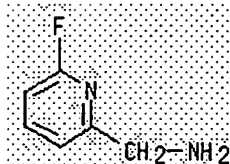
CN 2-Pyridinecarbonitrile, 5-chloro- (9CI) (CA INDEX NAME)

RN 97509-75-6 HCAPLUS

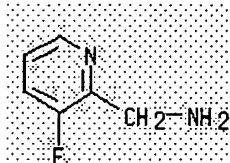
CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



RN 205744-18-9 HCAPLUS  
 CN 2-Pyridinemethanamine, 6-fluoro- (9CI) (CA INDEX NAME)

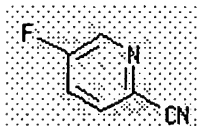


RN 312904-49-7 HCAPLUS  
 CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)

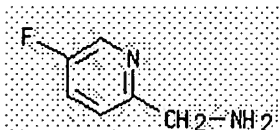


# 2 HCl

RN 327056-62-2 HCAPLUS  
 CN 2-Pyridinecarbonitrile, 5-fluoro- (9CI) (CA INDEX NAME)



RN 561297-96-9 HCAPLUS  
 CN 2-Pyridinemethanamine, 5-fluoro- (9CI) (CA INDEX NAME)



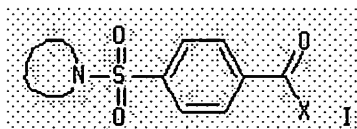
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text Citing References

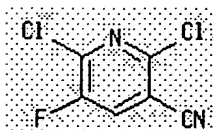
ACCESSION NUMBER: 2005:638844 HCAPLUS  
 DOCUMENT NUMBER: 143:133274  
 TITLE: Preparation of arylsulfonyl-substituted indoles as CB1 receptor modulators  
 INVENTOR(S): Allen, Jennifer Rebecca; Amegadzie, Albert Kudzovi; Gardinier, Kevin Matthew; Gregory, George Stuart; Hitchcock, Steven Andrew; Hoogestraat, Paul J.; Jones, Winton Dennis, Jr.; Smith, Daryl Lynn  
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA  
 SOURCE: PCT Int. Appl., 204 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2005066126</u>	A1	20050721	<u>WO 2004-US39763</u>	20041213
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			<u>US 2003-532247P</u>	P 20031223
OTHER SOURCE(S):			MARPAT 143:133274	
GI				

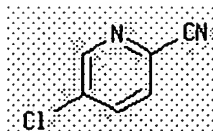


AB Title compds. I [the nitrogen contg. ring = indolyl, pyrrolopyridinyl, etc.; X = amino, etc.] are prepd. For instance, N-(4-Fluorobenzyl)-4-[(3-phenylpyrrolo[3,2-c]pyridine-1-yl)sulfonyl]benzamide is prepd. from 3-Phenyl-1H-pyrrolo[3,2-c]pyridine (prepn. given) and 4-(4-Fluorobenzylcarbamoyl)benzenesulfonyl chloride (THF, KOBu-t, 16 h). Compds. of the invention exhibit IC<sub>50</sub> ? 5 µM for the CB1 and CB2 receptors. I are useful in the treatment of psychosis, memory deficits, cognitive disorders, migraine, neuropathy, neuro-inflammatory disorders (e.g., multiple sclerosis, Guillain-Barre syndrome and the inflammatory sequelae of viral encephalitis), cerebral vascular accidents, head trauma, anxiety disorders, stress, epilepsy, Parkinson's disease and schizophrenia. I are also useful for the treatment of substance abuse disorders, particularly to opiates, alc., and nicotine and for the treatment of obesity or eating disorders assocd. with excessive food intake and complications assocd. therewith.

IT 82671-02-1, 2,6-Dichloro-3-cyano-5-fluoropyridine  
 RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
 (prepn. of arylsulfonyl-substituted indoles as CB1 receptor modulators)  
 RN 82671-02-1 HCAPLUS  
 CN 3-Pyridinecarbonitrile, 2,6-dichloro-5-fluoro- (9CI) (CA INDEX NAME)

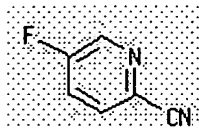


IT 89809-64-3P, 5-Chloro-2-cyanopyridine 327056-62-2P,  
 2-Cyano-5-fluoropyridine 859164-78-6P, 2-Aminomethyl-5-fluoropyridine dihydrochloride  
 RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)  
 (prepn. of arylsulfonyl-substituted indoles as CB1 receptor modulators)  
 RN 89809-64-3 HCAPLUS  
 CN 2-Pyridinecarbonitrile, 5-chloro- (9CI) (CA INDEX NAME)



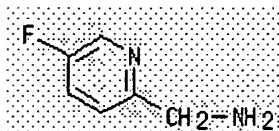
RN 327056-62-2 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-fluoro- (9CI) (CA INDEX NAME)



RN 859164-78-6 HCAPLUS

CN 2-Pyridinemethanamine, 5-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



# 2: HCl

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 2005:612238 HCAPLUS

DOCUMENT NUMBER: 143:133188

TITLE: Preparation of  $\alpha$ -hydroxy carboxamides,  
particularly N-biphenylmethyl and N-phenylpyridin-2-  
ylmethyl amides, as bradykinin B1 antagonists or  
inverse agonists useful in the treatment of pain and  
inflammation

INVENTOR(S): Wood, Michael R.; Anthony, Neville J.; Bock, Mark G.;  
Kuduk, Scott D.

PATENT ASSIGNEE(S): Merck &amp; Co., Inc., USA

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063690	A1	20050714	WO 2004-US42691	20041217
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2003-531643P

P 20031222

US 2004-539637P

P 20040128

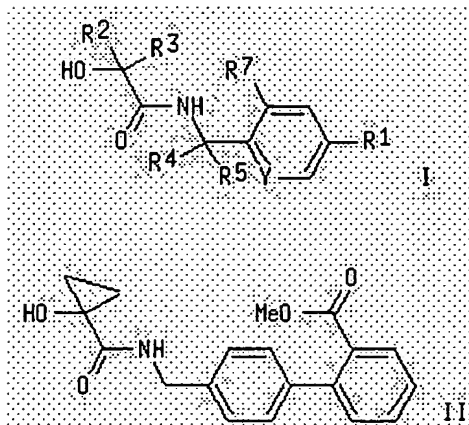
US 2004-624958P

P 20041104

OTHER SOURCE(S):

MARPAT 143:133188

GI



AB Title compds. [I; Y = CH, N; R1 = (un)substituted Ph, 2,2-dioxo-2,1-benzisothiazolin-1-yl; R2 = H, (un)substituted alkyl, Ph, etc.; R3 = defined as R2; or R3 = OH; or R2CR3 = (un)substituted 3-7-membered carbocyclyl; R4, R5 = independently H, halo/alkyl; R7 = H, halo] were prepd. as bradykinin B1 antagonists or inverse agonists useful in the treatment of pain and inflammation assocd. with the bradykinin B1 pathway. For example, coupling of 1-hydroxycyclopropanecarboxylic acid with Me 4'-(aminomethyl)biphenyl-2-carboxylate gave amide II. I have affinity for the B1 receptor in a radioligand assay as demonstrated by results of less than 5  $\mu$ M [sic].

IT **858414-19-4P**, Methyl 2-[6-(aminomethyl)-5-fluoropyridin-3-yl]-6-fluorobenzoate

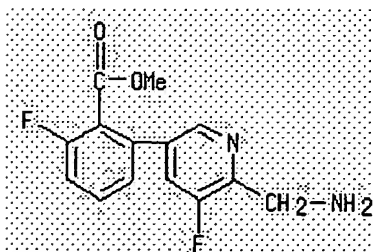
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(**Preparation**); RACT (Reactant or reagent)

(intermediate; prepn. of  $\alpha$ -hydroxy N-biphenylmethyl and N-phenylpyridin-2-ylmethyl amides as bradykinin B1 antagonists or inverse agonists useful in the treatment of pain and inflammation)

RN **858414-19-4** HCAPLUS

CN Benzoic acid, 2-[6-(aminomethyl)-5-fluoro-3-pyridinyl]-6-fluoro-, methyl ester (9CI) (CA INDEX NAME)



IT **97509-75-6**, 2-Cyano-3-fluoropyridine **573675-25-9**,

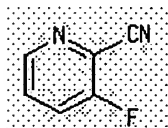
5-Bromo-3-nitropyridine-2-carbonitrile

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

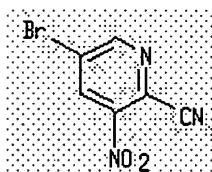
(prepn. of  $\alpha$ -hydroxy N-biphenylmethyl and N-phenylpyridin-2-ylmethyl amides as bradykinin B1 antagonists or inverse agonists useful in the treatment of pain and inflammation)

RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)

RN 573675-25-9 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-bromo-3-nitro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text  
Citing References

ACCESSION NUMBER: 2004:878165 HCAPLUS

DOCUMENT NUMBER: 141:379809

TITLE: Preparation of pyridine derivatives as CXCR4 chemokine receptor binding compounds

INVENTOR(S): Bridger, Gary; McEachern, Ernest J.; Skerlj, Renato; Schols, Dominique

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 211 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 2004209921</u>	A1	20041021	<u>US 2004-823494</u>	20040412
<u>CA 2520259</u>	AA	20041028	<u>CA 2004-2520259</u>	20040412
<u>WO 2004091518</u>	A2	20041028	<u>WO 2004-US11328</u>	20040412
<u>WO 2004091518</u>	A3	20041223		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1613613

A2

20060111

EP 2004-759481

20040412

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRIORITY APPLN. INFO.:

US 2003-462736P

P 20030411

US 2003-505688P

P 20030923

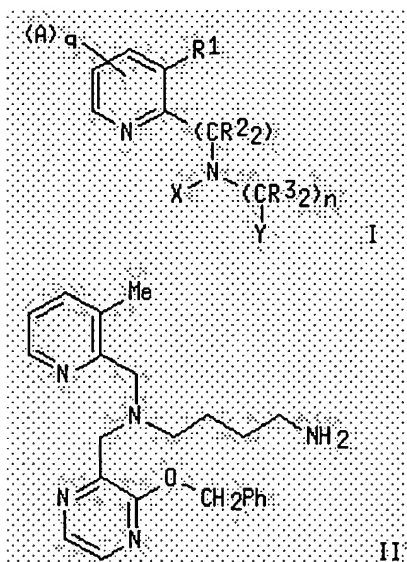
WO 2004-US11328

W 20040412

OTHER SOURCE(S):

MARPAT 141:379809

GI



AB Title compds. I [X = (CR32)o-(CR3=CR3)p-(CR32)r-NR52, (CR32)s-R4, (un)substituted mono or bicyclic ring optionally contg. N, O or S, etc.; Y = (un)substituted N-contg. monocyclic or bicyclic arom. or partially arom. moiety; A and R1 = non-interfering substituent provided that two As do not form a ring; R2 and R3 = H or (un)substituted alkyl; R4 = (un)substituted heterocycle or a hetero compd.; R5 = H or alkyl; wherein R1 and R2 is not H; and wherein R1 and R2 may be connected to form an addnl. ring if Y does not contain a 2-imidazolyl residue optionally connected to an addnl. ring; q and n independently = 0-4; p = 0-1; o and r independently = 1-4; s = 1-6 provided that if X = (CR3)2-R4, r is at least two if R4 = 2-pyridinyl, quinolinyl, imidazolyl or furan], as well as their pharmaceutically acceptable salts, are prepd. and disclosed as having the ability to bind to chemokine receptors, in particular CXCR4. Thus, e.g., II was prepd. by reductive amination of {4-[(3-methylpyridin-2-ylmethyl)-amino]-butyl}carbamic acid tert-Bu ester (prepn. given) with 3-benzyloxypyrazine-2-carbaldehyde. The present invention also relates to methods of using such compds., such as in treating HIV infection and inflammatory conditions such as rheumatoid arthritis. In assays to evaluate inhibition of HIV-1, many compds. of the invention exhibited IC50 values in the range of 0.5nM-5µM. Furthermore, the present invention relates to methods to elevate progenitor and stem cell counts, as well as methods to elevate white blood cell counts, using such compds.

IT 780802-39-3P 780802-40-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

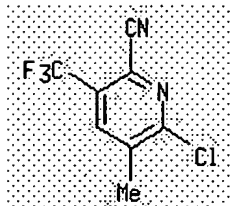
(Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of pyridine derivs. as CXCR4 chemokine receptor binding compds.)

RN 780802-39-3 HCAPLUS

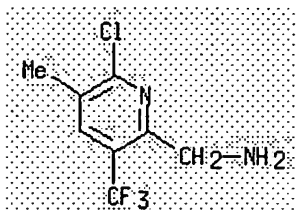


CN 2-Pyridinecarbonitrile, 6-chloro-5-methyl-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



RN 780802-40-6 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro-5-methyl-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)



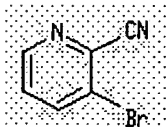
IT 55758-02-6 298709-29-2

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(starting material; prepn. of pyridine derivs. as CXCR4 chemokine receptor binding compds.)

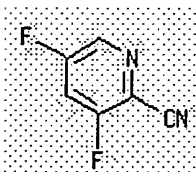
RN 55758-02-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-bromo- (9CI) (CA INDEX NAME)



RN 298709-29-2 HCAPLUS

CN 2-Pyridinecarbonitrile, 3,5-difluoro- (9CI) (CA INDEX NAME)



L11 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

CHAP  
References

ACCESSION NUMBER: 2004:203618 HCAPLUS

DOCUMENT NUMBER: 140:253570

TITLE: Preparation of N-biarylmethylaminocycloalkanecarboxamide as bradykinin B1 antagonists

INVENTOR(S): Kuduk, Scott D.; Wood, Michael R.; Bock, Mark G.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2004019868</u>	A2	20040311	<u>WO 2003-US26628</u>	20030825
<u>WO 2004019868</u>	A3	20040429		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2495914</u>	AA	20040311	<u>CA 2003-2495914</u>	20030825
<u>BR 2003013239</u>	A	20050614	<u>BR 2003-13239</u>	20030825
<u>EP 1545538</u>	A2	20050629	<u>EP 2003-791763</u>	20030825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
<u>JP 2005537323</u>	T2	20051208	<u>JP 2004-532994</u>	20030825
<u>US 2005288305</u>	A1	20051229	<u>US 2005-523911</u>	20050208
<u>NO 2005001539</u>	A	20050525	<u>NO 2005-1539</u>	20050323
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2002-406742P</u>	P 20020829
			<u>WO 2003-US26628</u>	W 20030825
OTHER SOURCE(S):	MARPAT	140:253570		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [Het = pyridyl, pyrimidinyl, N-oxide thereof; R1-2 = H, alkyl; R3a-3b = H, alkyl; R4a-4b = H, halo, alkyl, etc.; R5 = alkyl, cycloalkyl, alkynyl, alkenyl, etc.; R6a = alkyl, cycloalkyl, alkenyl, etc.; R6b-6c = H and not more than one of R6a-6c = heterocycle; R7a-7b = H, halo, CN, etc.; m = 0-3] are prepd. For instance, 1-[(pyrimidin-5-yl)carbonyl]amino]cyclobutanecarboxylic acid (prepn. given) is coupled to Me 2-[2-(aminomethyl)pyrimidin-5-yl]-6-fluorobenzoate (prepn. given; DMF, HOBt, EDCI, Et3N) to give II. Compds. of the invention have affinity for the bradykinin B1 receptor at less than 5  $\mu$ M. I are useful for the treatment of pain and inflammation.

IT 97509-75-6, 2-Cyano-3-fluoropyridine 573675-25-9,

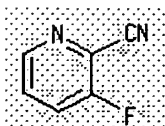
5-Bromo-3-nitropyridine-2-carbonitrile

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

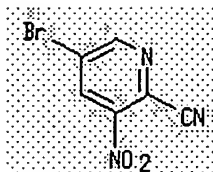
(prepn. of N-biarylmethylaminocycloalkancarboxamide as bradykinin B1 antagonists)

RN 97509-75-6 HCAPLUS

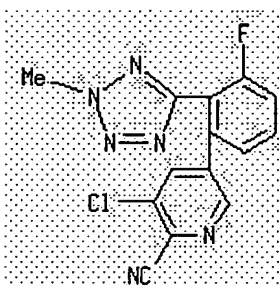
CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)

RN 573675-25-9 HCAPLUS

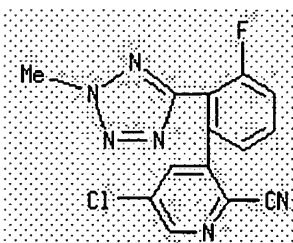
CN 2-Pyridinecarbonitrile, 5-bromo-3-nitro- (9CI) (CA INDEX NAME)



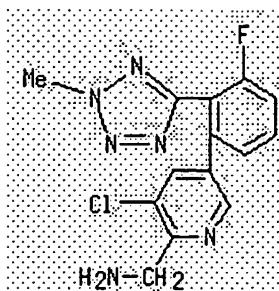
IT **669066-28-8P**, 3-Chloro-5-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]pyridine-2-carbonitrile **669066-30-2P**, 5-Chloro-3-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]pyridine-2-carbonitrile **669066-31-3P**, 1-[3-Chloro-5-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]pyridin-2-yl]methanamine **669066-35-7P**, 3-Fluoro-4-iodopyridine-2-carbonitrile **669066-36-8P**, 3-Fluoro-5-iodopyridine-2-carbonitrile **669066-37-9P**, Methyl 2-(6-cyano-5-fluoropyridin-3-yl)-6-fluorobenzoate  
 RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)  
 (prepn. of N-biarylmethylaminocycloalkanecarboxamide as bradykinin B1 antagonists)  
 RN **669066-28-8** HCAPLUS  
 CN 2-Pyridinecarbonitrile, 3-chloro-5-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]- (9CI) (CA INDEX NAME)



RN **669066-30-2** HCAPLUS  
 CN 2-Pyridinecarbonitrile, 5-chloro-3-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]- (9CI) (CA INDEX NAME)

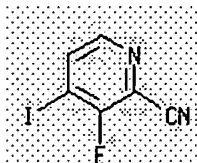


RN **669066-31-3** HCAPLUS  
 CN 2-Pyridinemethanamine, 3-chloro-5-[3-fluoro-2-(2-methyl-2H-tetrazol-5-yl)phenyl]- (9CI) (CA INDEX NAME)



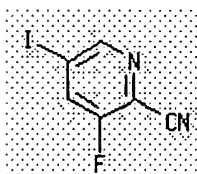
RN 669066-35-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro-4-iodo- (9CI) (CA INDEX NAME)



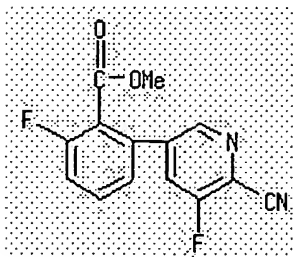
RN 669066-36-8 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro-5-iodo- (9CI) (CA INDEX NAME)



RN 669066-37-9 HCAPLUS

CN Benzoic acid, 2-(6-cyano-5-fluoro-3-pyridinyl)-6-fluoro-, methyl ester (9CI) (CA INDEX NAME)



L11 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text References

ACCESSION NUMBER: 2004:85763 HCAPLUS  
 DOCUMENT NUMBER: 140:272675  
 TITLE: Development of a Scaleable Synthesis of a  
 3-Aminopyrazinone Acetamide Thrombin Inhibitor  
 AUTHOR(S): Ashwood, Michael S.; Alabaster, Ramon J.; Cottrell,  
 Ian F.; Cowden, Cameron J.; Davies, Antony J.;  
 Dolling, Ulf H.; Emerson, Khateeta M.; Gibb, Andrew  
 D.; Hands, David; Wallace, Debra J.; Wilson, Robert D.  
 CORPORATE SOURCE: Department of Process Research, Merck Sharp and Dohme  
 Research Laboratories, Hoddesdon, Hertfordshire, EN11  
 9BU, UK  
 SOURCE: Organic Process Research & Development (2004), 8(2),  
 192-200  
 CODEN: OPRDFK; ISSN: 1083-6160

PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 140:272675

AB A scaleable route to 2-{3-[(2,2-difluoro-2-(2-pyridyl)ethyl)amino]-6-chloro-2-oxohydropyrazinyl}-N-[(3-fluoro(2-pyridyl)methyl)acetamide (I) is described in which various scaleup issues were addressed to provide a safe, efficient, and robust route for the prepn. of multi-kilo amts. of the compd. The use of expensive and toxic reagents, notably sodium azide, TMS-cyanide, and Deoxo-Fluor, and the need for specialist equipment were overcome in the prepn. of the key fluorinated intermediates 2,2-difluoro-2-(2-pyridyl)ethylamine and 2-aminomethyl-3-fluoropyridine. With minimal isolations and through processing of intermediates, the thrombin inhibitor I was isolated in 36% overall yield.

IT **97509-75-6P**, 3-Fluoropyridine-2-carbonitrile

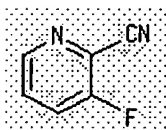
RL: IMF (Industrial manufacture); **RCT (Reactant)**; PREP

(Preparation); RACT (Reactant or reagent)

(intermediate; scaleup synthesis route with min. steps and safer reagents for 3-aminopyrazinone acetamide thrombin inhibitor)

RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



IT **312904-49-7P**, 2-Aminomethyl-3-fluoropyridine dihydrochloride

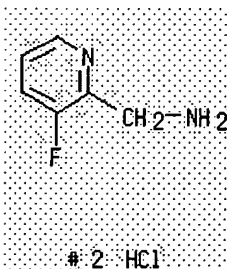
RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT

(Reactant); **PREP (Preparation)**; RACT (Reactant or reagent)

(recrystd., intermediate; scaleup synthesis route with min. steps and safer reagents for 3-aminopyrazinone acetamide thrombin inhibitor)

RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT:

17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN



ACCESSION NUMBER: 2003:913147 HCAPLUS

DOCUMENT NUMBER: 139:381477

TITLE: Preparation of 4,5-dihydro-1H-benzo[g]indazole-3-carboxamides as IKK2 inhibitors for the treatment of cancer and inflammation

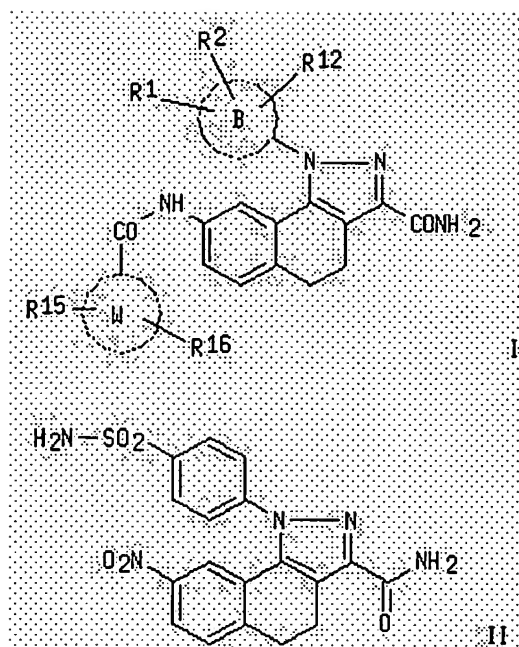
INVENTOR(S): Lennon, Patrick; Bonafoux, Dominique; Oburn, David S.; Wolfson, Serge G.

PATENT ASSIGNEE(S): Pharmacia Corporation, USA

SOURCE: PCT Int. Appl., 312 pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2003095430</u>	A1	20031120	<u>WO 2003-US8917</u>	20030319
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>WO 2003024935</u>	A2	20030327	<u>WO 2002-US29774</u>	20020919
<u>WO 2003024935</u>	A3	20030821		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>AU 2003220483</u>	A1	20031111	<u>AU 2003-220483</u>	20030319
<u>CA 2485298</u>	AA	20031120	<u>CA 2003-2485298</u>	20030319
<u>EP 1501805</u>	A1	20050202	<u>EP 2003-716793</u>	20030319
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<u>BR 2003010010</u>	A	20050215	<u>BR 2003-10010</u>	20030319
<u>JP 2005530773</u>	T2	20051013	<u>JP 2004-503448</u>	20030319
<u>US 2005256180</u>	A1	20051117	<u>US 2005-113926</u>	20050425
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2002-379090P</u>	P 20020509
			<u>WO 2002-US29774</u>	A 20020919
			<u>US 2001-323423P</u>	P 20010919
			<u>US 2002-247096</u>	A3 20020919
			<u>WO 2003-US8917</u>	W 20030319
OTHER SOURCE(S):	MARPAT	139:381477		
GI				



AB The present invention relates to substituted pyrazolyl derivs., compns. comprising such, intermediates, methods of making substituted pyrazolyl derivs., and methods for treating cancer, inflammation, and inflammation-assocd. disorders, such as arthritis. 4,5-Dihydro-1H-benzo[g]indazole-3-carboxamides (shown as I; variables defined below; e.g. II) were prepd. via conventional and solid phase synthetic methods as IKK protein kinase  $\beta$  (IKK $\beta$  or IKK2) inhibitors. Although the methods of prepn. are not claimed, 480 example preps. and/or characterization data are included. For example, reaction of 7-nitro-1-tetralone with Et acetate in the presence of Li bis(trimethylsilyl)amide in ether gave the 1,3-diketone (87%), which was cyclized with 4-sulfonamidophenylhydrazine·HCl with HCl in MeOH to give the Et 1H-dihydrobenzo[g]indazolecarboxylate (69%). Amidation with NH<sub>4</sub>OH in MeOH provided II. In IKK $\beta$  resin enzyme assays, I exhibited IKK $\beta$  activity with IC<sub>50</sub> values ranging from ? 1  $\mu$ M to > 100  $\mu$ M. Thus, I are useful for treating cancer, inflammation, and inflammation-assocd. disorders, such as arthritis (no data). For I: B is a 5 or 6 membered heteroaryl, aryl, (un)satd. heterocyclic (un)substituted with R<sub>1</sub>, R<sub>2</sub>, and R<sub>12</sub>; W is a 5 or 6 membered heteroaryl, aryl, (un)satd. heterocyclic. R<sub>1</sub> = hydrido, halo, alkyl, aryl, heteroaryl, alkenyl, alkynyl, haloalkyl, CN, NO<sub>2</sub>, OR<sub>5</sub>, OCOOR<sub>5</sub>, CO<sub>2</sub>R<sub>7</sub>, CON(R<sub>6</sub>)R<sub>7</sub>, COR<sub>6</sub>, SR<sub>6</sub>, SOR<sub>6</sub>, SO<sub>2</sub>R<sub>6</sub>, NR<sub>6</sub>R<sub>7</sub>, NR<sub>6</sub>COR<sub>7</sub>, NR<sub>6</sub>CONHR<sub>7</sub>, NR<sub>6</sub>SO<sub>2</sub>R<sub>7</sub>, NR<sub>6</sub>SO<sub>2</sub>NHR<sub>7</sub>, and SO<sub>2</sub>N(R<sub>6</sub>)R<sub>7</sub>; R<sub>2</sub> = halo, hydrido, hydroxyalkyl, alkyl, OR<sub>6</sub>, CN, NO<sub>2</sub>, SR<sub>6</sub>, NHR<sub>6</sub>, CON(R<sub>6</sub>)R<sub>7</sub>, NHCONHR<sub>6</sub>, CO<sub>2</sub>H, and haloalkyl; R<sub>1</sub> and R<sub>2</sub> may be taken together to form a 5 to 7 membered (un)satd. carbocyclic ring optionally contg. 0 to 3 heteroatoms N, O, or S, and wherein said ring is (un)substituted with R<sub>1</sub>. R<sub>12</sub> = hydrido, halo, alkyl, and alkoxy; R<sub>15</sub> = alkylsulfonamide, sulfamyl, alkyl, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, aminoalkyl, alkylaminoalkyl, dialkylaminoalkyl, alkoxy, halo, acyloxy, oxy, formyl, haloalkyl, cyano, haloalkoxy, acyl, carboxy, hydroxy, hydroxyalkyloxy, phenoxy, nitro, azido, benzyloxy, dialkylaminoacyl, thioalkyl, aminoacyloxy, thiocyanate, isothiocyanate, alkylidioxo, hydroxyalkyl, alkylamino, alkylloxycarbonyl, alkoxyalkyl, alkenylamino, alkynylamino, alkenyl, alkynyl, dialkylaminoalkyloxy, and heterocyclic; addnl. details are given in the claims.

IT **623585-57-9P**, 1-(1,3-Benzodioxol-5-yl)-8-[[ (3-chloro-6-cyanopyridin-2-yl) carbonyl] amino]-4,5-dihydro-1H-benzo[g]indazole-3-

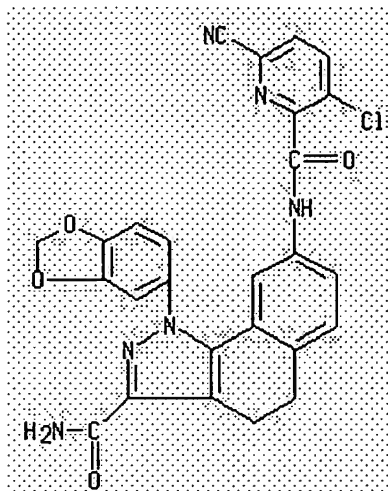
carboxamide 623585-58-0P 623585-62-6P

623585-64-8P, 1-(1,3-Benzodioxol-5-yl)-8-[(5-chloro-2-cyanoisonicotinoyl)amino]-4,5-dihydro-1H-benzo[g]indazole-3-carboxamide  
623585-66-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses (drug candidate; prepn. of 4,5-dihydro-1H-benzo[g]indazole-3-carboxamides as IKK2 inhibitors for treatment of cancer and inflammation)

RN 623585-57-9 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 1-(1,3-benzodioxol-5-yl)-8-[[ (3-chloro-6-cyano-2-pyridinyl)carbonyl]amino]-4,5-dihydro- (9CI) (CA INDEX NAME)



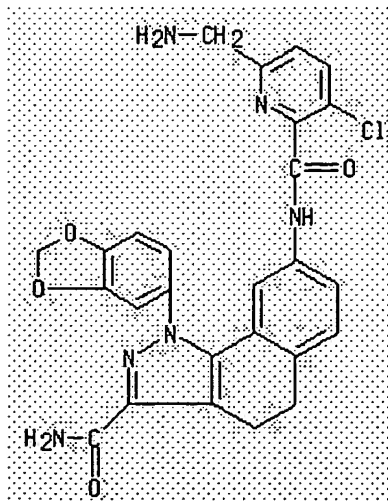
RN 623585-58-0 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[6-(aminomethyl)-3-chloro-2-pyridinyl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

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CRN 623585-56-8

CMF C26 H21 Cl N6 O4

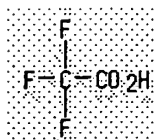




CM 2

CRN 76-05-1

CMF C2 H F3 O2

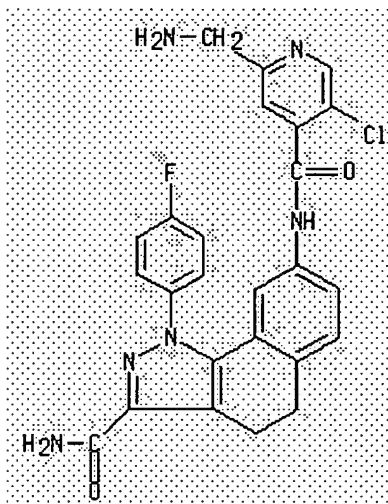
RN 623585-62-6 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(4-fluorophenyl)-4,5-dihydro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 623585-61-5

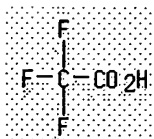
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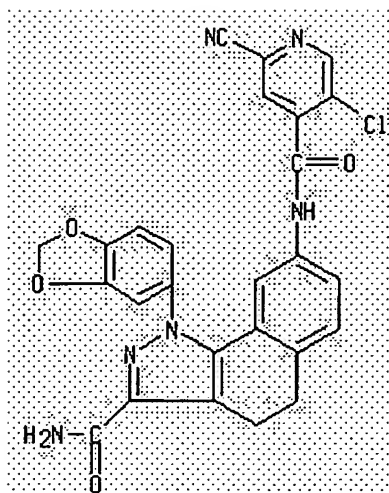
CM 2

CRN 76-05-1

CMF C2 H F3 O2

RN 623585-64-8 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 1-(1,3-benzodioxol-5-yl)-8-[[[5-chloro-2-cyano-4-pyridinyl]carbonyl]amino]-4,5-dihydro- (9CI) (CA INDEX NAME)



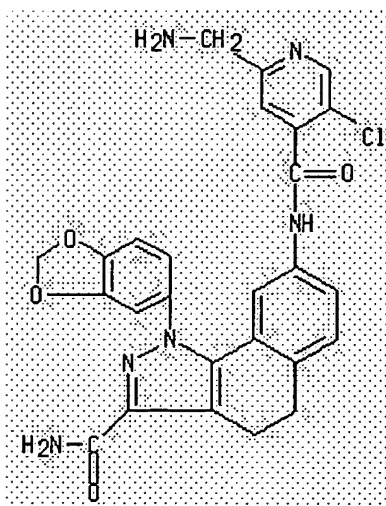
RN 623585-66-0 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 623585-65-9

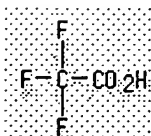
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



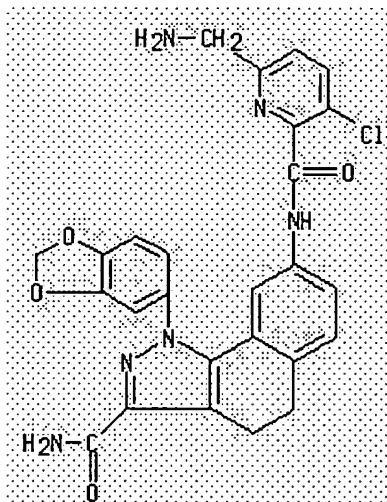
IT 623585-56-8P, 8-[[[6-(Aminomethyl)-3-chloropyridin-2-yl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro-1H-benzo[g]indazole-3-carboxamide 623585-60-4P 623585-61-5P, 8-[[[2-(Aminomethyl)-5-chloroisonicotinoyl]amino]-1-(4-fluorophenyl)-4,5-dihydro-1H-benzo[g]indazole-3-carboxamide 623585-63-7P

**623585-65-9P**, 8-[[2-(Aminomethyl)-5-chloroisonicotinoyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro-1H-benzo[g]indazole-3-carboxamide  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**;  
 USES (Uses)

(drug candidate; prepn. of 4,5-dihydro-1H-benzo[g]indazole-3-carboxamides as IKK2 inhibitors for treatment of cancer and inflammation)

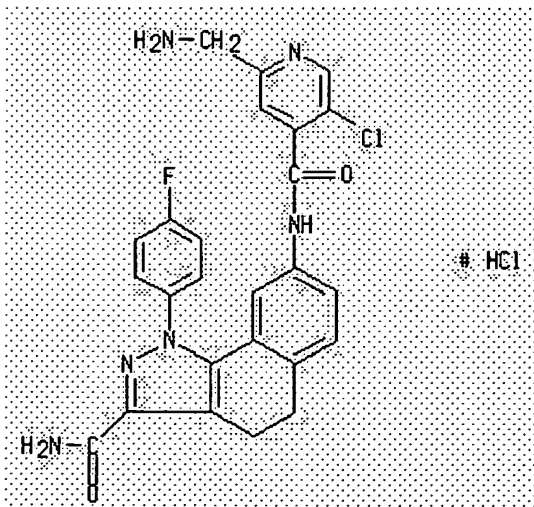
RN **623585-56-8** HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[6-(aminomethyl)-3-chloro-2-pyridinyl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro- (9CI) (CA INDEX NAME)



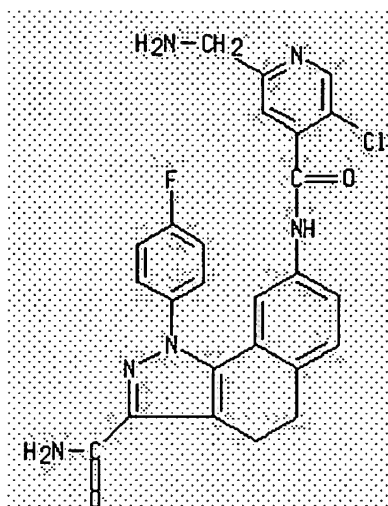
RN **623585-60-4** HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(4-fluorophenyl)-4,5-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)



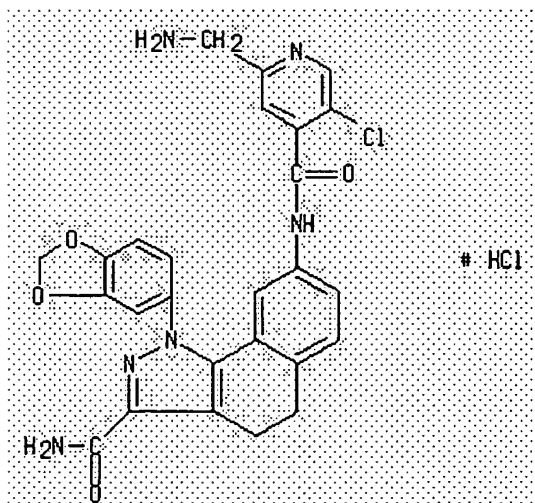
RN **623585-61-5** HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(4-fluorophenyl)-4,5-dihydro- (9CI) (CA INDEX NAME)



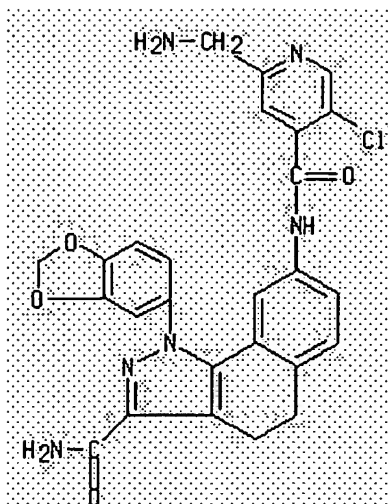
RN 623585-63-7 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro-, monohydrochloride (9CI) (CA INDEX NAME)



RN 623585-65-9 HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[[2-(aminomethyl)-5-chloro-4-pyridinyl]carbonyl]amino]-1-(1,3-benzodioxol-5-yl)-4,5-dihydro- (9CI) (CA INDEX NAME)



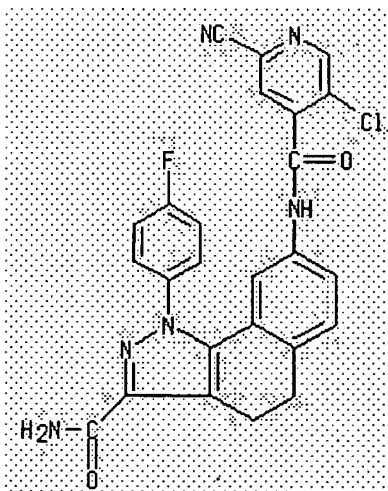
IT **623585-59-1P**, 8-[(5-Chloro-2-cyanoisonicotinoyl)amino]-1-(4-fluorophenyl)-4,5-dihydro-1H-benzo[g]indazole-3-carboxamide  
**623585-68-2P**

RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)

(prepn. of 4,5-dihydro-1H-benzo[g]indazole-3-carboxamides as IKK2 inhibitors for treatment of cancer and inflammation)

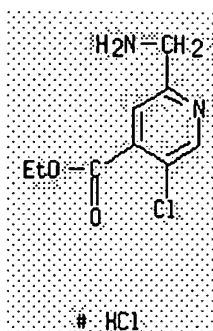
RN **623585-59-1** HCAPLUS

CN 1H-Benz[g]indazole-3-carboxamide, 8-[[ (5-chloro-2-cyano-4-pyridinyl)carbonyl]amino]-1-(4-fluorophenyl)-4,5-dihydro- (9CI) (CA INDEX NAME)



RN **623585-68-2** HCAPLUS

CN 4-Pyridinecarboxylic acid, 2-(aminomethyl)-5-chloro-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

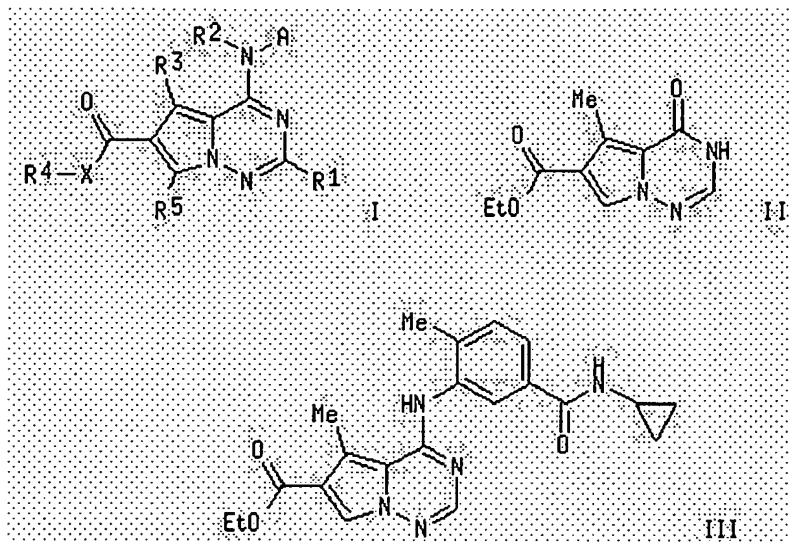
L11 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

ACCESSION NUMBER: 2003:875173 HCAPLUS  
DOCUMENT NUMBER: 139:381511  
TITLE: Pyrrolotriazine aniline compounds useful as kinase inhibitors, particularly p38 kinases, and their preparation, pharmaceutical compositions, and use as antiinflammatory agents  
INVENTOR(S): Dyckman, Alaric; Hynes, John; Leftheris, Katherina; Liu, Chunjian; Wroblewski, Stephen T.  
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA  
SOURCE: PCT Int. Appl., 158 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003090912	A1	20031106	WO 2003-US12426	20030415
WO 2003090912	C2	20040108		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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CA 2483164	AA	20031106	CA 2003-2483164	20030415
AU 2003231034	A1	20031110	AU 2003-231034	20030415
EP 1497019	A1	20050119	EP 2003-724157	20030415
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003009669	A	20050301	BR 2003-9669	20030415
JP 2005523338	T2	20050804	JP 2003-587532	20030415
CN 1662509	A	20050831	CN 2003-814293	20030415
NO 2004004560	A	20041110	NO 2004-4560	20041022
PRIORITY APPLN. INFO.:			US 2002-374938P	P 20020423
			WO 2003-US12426	W 20030415

OTHER SOURCE(S): MARPAT 139:381511  
GI



AB Title compds. I and their enantiomers, diastereomers, pharmaceutically acceptable salts, prodrugs, and solvates are useful as p38 kinase inhibitors [wherein: A = certain substituted Ph rings, particularly bearing various carboxamide and sulfonamide substituents; X = O, OCO, S, S(O), SO<sub>2</sub>, CO, CO<sub>2</sub>, (un)substituted NH, NHCO, NHCONH, NHCO<sub>2</sub>, NHSO<sub>2</sub>, NHSO<sub>2</sub>NH, SO<sub>2</sub>NH, or CONH, halo, NO<sub>2</sub>, cyano, or bond; R<sub>1</sub>, R<sub>5</sub> = H, (un)substituted alkyl, OH or derivs., SH or derivs., CO<sub>2</sub>H or derivs., NH<sub>2</sub> or derivs., halo, NO<sub>2</sub>, cyano; R<sub>2</sub> = H, alkyl; R<sub>3</sub> = H, Me, CF<sub>3</sub>, MeO, halo, cyano, NH<sub>2</sub>, or NHMe; R<sub>4</sub> = H (with provisos), (un)substituted alk(en/yn)yl, (hetero)aryl, (hetero)cycloalkyl, or absent]. Over 300 specific compds. I and various intermediates were prepd. Compds. I selectively inhibited human p38α/β isoenzymes and TNF-α in vitro (no data). For instance, 3-amino-4-methylbenzoic acid was amidated quant. with cyclopropylamine using EDC and DMAP in DMF. The pyrrolo[2,1-b]triazine ester II was then chlorinated at the ring oxo group with POCl<sub>3</sub> (100%). Aminolysis of the resulting chloride with the benzamide product from the first step gave 80% invention compd. III.

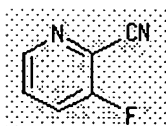
IT **97509-75-6P 312904-49-7P**

RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)

(intermediate; prepn. of pyrrolo[2,1-b]triazine aniline compds. as p38 kinase inhibitors)

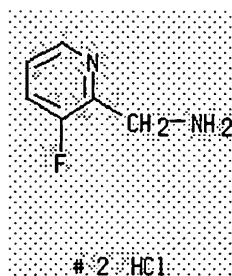
RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text Cited  
References

ACCESSION NUMBER:

2003:855655 HCAPLUS

DOCUMENT NUMBER:

139:350636

TITLE:

Preparation of amino heteroaryl amides for use in  
pharmaceutical compositions for the treatment of  
angiogenesis mediated diseases such as cancer

INVENTOR(S):

Patel, Vinod F.; Askew, Benny; Booker, Shon; Chen,  
Guoqing; Dipietro, Lucian V.; Germain, Julie; Habgood,  
Gregory J.; Huang, Qi; Kim, Tae-seong; Li, Aiwon;  
Nishimura, Nobuko; Nomak, Rana; Riahi, Babak; Yuan,  
Chester Chenguang; Elbaum, Daniel

PATENT ASSIGNEE(S):

Amgen Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 148 pp., Cont.-in-part of U.S.  
Ser. No. 46,622.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

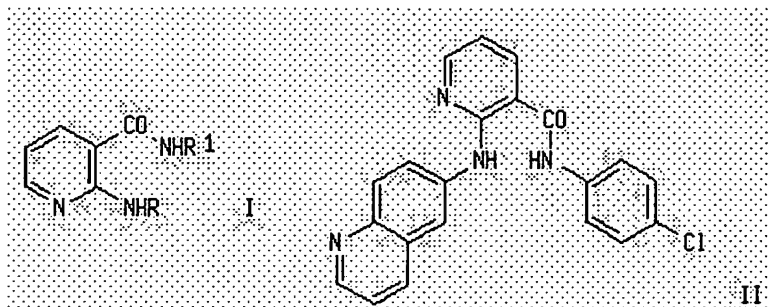
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 2003203922</u>	A1	20031030	<u>US 2002-197918</u>	20020717
<u>US 2003195230</u>	A1	20031016	<u>US 2002-46622</u>	20020110
<u>CN 1538836</u>	A	20041020	<u>CN 2002-806467</u>	20020111
<u>ZA 2003005198</u>	A	20040630	<u>ZA 2003-5198</u>	20030704
<u>CA 2492045</u>	AA	20040122	<u>CA 2003-2492045</u>	20030715
<u>WO 2004007481</u>	A2	20040122	<u>WO 2003-US22275</u>	20030715
<u>WO 2004007481</u>	A3	20040219		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>AU 2003263784</u>	A1	20040202	<u>AU 2003-263784</u>	20030715
<u>EP 1562933</u>	A2	20050817	<u>EP 2003-764755</u>	20030715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
<u>JP 2006502118</u>	T2	20060119	<u>JP 2004-521922</u>	20030715
PRIORITY APPLN. INFO.:				
			<u>US 2001-261882P</u>	P 20010112
			<u>US 2001-323808P</u>	P 20010919



US 2002-46622  
 US 2002-197918  
 WO 2003-US22275

A2 20020110  
 A 20020717  
 W 20030715

OTHER SOURCE(S): MARPAT 139:350636  
 GI



AB Amino substituted heteroaryl amides, such as I [R = nitrogen contg. heteroaryl, such as quinolinyl, isoquinolinyl, indazolyl; R1 = aryl, cycloalkyl, heteroaryl, heterocyclyl], were prepd. for therapeutic use. The invention encompasses novel compds., analogs, prodrugs and pharmaceutically acceptable salts thereof, pharmaceutical compns. and methods for prophylaxis and treatment of cancer, angiogenesis related disorders, KDR-related disorders, cell proliferation related disorders, inflammation, reducing blood flow in tumors, reducing tumor size and diabetic retinopathy. Thus, amide II was prepd. via an amination reaction of 2-chloronicotinic acid with 6-aminoquinoline followed by an amidation reaction of the aminonicotinic acid deriv. thus formed with 4-chloroaniline. Biol. evaluations included HUVEC proliferation assay, inhibition of angiogenesis in the rat corneal neovascularization micropocket model, and antitumor activity using A431 rat tumor cells.

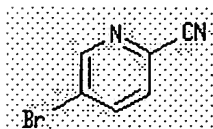
IT 97483-77-7P, 5-Bromopyridine-2-carbonitrile 97509-75-6P  
312904-51-1P 327056-62-2P 561297-96-9P

RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)

(prepn. of aminopyridinecarboxamides for therapeutic use in treatment of angiogenesis mediated diseases such as cancer)

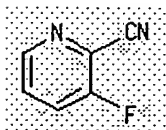
RN 97483-77-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-bromo- (9CI) (CA INDEX NAME)



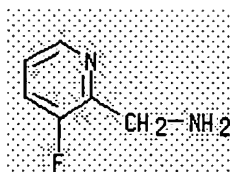
RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)

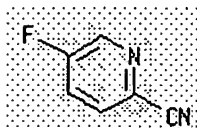


RN 312904-51-1 HCAPLUS

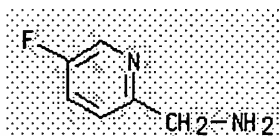
CN 2-Pyridinemethanamine, 3-fluoro- (9CI) (CA INDEX NAME)

RN 327056-62-2 HCAPLUS

CN 2-Pyridinecarbonitrile, 5-fluoro- (9CI) (CA INDEX NAME)

RN 561297-96-9 HCAPLUS

CN 2-Pyridinemethanamine, 5-fluoro- (9CI) (CA INDEX NAME)



L11 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Chemical References
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ACCESSION NUMBER: 2003:551181 HCAPLUS

DOCUMENT NUMBER: 139:117339

TITLE: Preparation of substituted arylamine derivatives as antitumor agents

INVENTOR(S): Elbaum, Daniel; Askew, Benny; Booker, Shon; Germain, Julie; Habgood, Gregory; Handley, Michael; Kim, Tae-Seong; Li, Aiwon; Nishimura, Nobuko; Patel, Vinod F.; Yuan, Chester Chenguang; Kim, Joseph L.

PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 106 pp., Cont.-in-part of U.S. Ser. No. 46,526.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 2003134836</u>	A1	20030717	<u>US 2002-197960</u>	20020717
<u>US 2002147198</u>	A1	20021010	<u>US 2002-46526</u>	20020110
<u>CA 2492164</u>	AA	20040122	<u>CA 2003-2492164</u>	20030715
<u>WO 2004007457</u>	A2	20040122	<u>WO 2003-US22276</u>	20030715
<u>WO 2004007457</u>	A3	20050804		

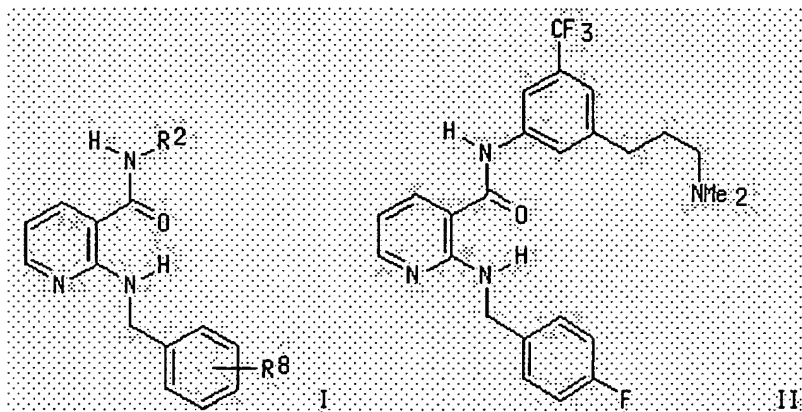
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

<u>AU 2003256577</u>	A1	20040202	<u>AU 2003-256577</u>	20030715
<u>EP 1583744</u>	A2	20051012	<u>EP 2003-764756</u>	20030715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
<u>JP 2006505511</u>	T2	20060216	<u>JP 2004-521923</u>	20030715
<u>US 2004204437</u>	A1	20041014	<u>US 2004-823809</u>	20040412
<u>US 2005153960</u>	A1	20050714	<u>US 2004-996035</u>	20041122
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2001-261360P</u>	P 20010112
			<u>US 2001-323686P</u>	P 20010919
			<u>US 2002-46526</u>	A2 20020110
			<u>US 2002-197960</u>	A 20020717
			<u>WO 2003-US22276</u>	W 20030715
			<u>US 2004-823809</u>	A1 20040412

OTHER SOURCE(S):            MARPAT 139:117339

GI



AB The title compds. I [R2 = (un)substituted Ph, 9-10 membered bicyclic and 11-14 membered tricyclic (un)satd. heterocyclyl; R8 = halo, NH2, NO2, etc.], and their pharmaceutically acceptable derivs., are prepd. and disclosed as agents effective for prophylaxis and treatment of diseases, such as angiogenesis mediated diseases. E.g., a multi-step synthesis of II, starting from 1-dimethylamino-2-propyne and 3-bromo-5-trifluoromethylaniline, was given. Selected compds. of the invention, e.g., II, inhibited VEGF-stimulated cell proliferation at a level below 50 nM. The invention encompasses novel compds., analogs, prodrugs and pharmaceutically acceptable derivs. thereof, pharmaceutical compns. and methods for prophylaxis and treatment of diseases and other maladies or conditions involving, cancer and the like.

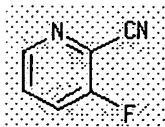
IT 97509-75-6P 312904-51-1P 561297-96-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of substituted aminopyridines as antitumor agents)

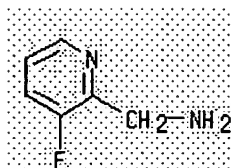
RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



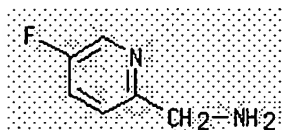
RN 312904-51-1 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro- (9CI) (CA INDEX NAME)



RN 561297-96-9 HCAPLUS

CN 2-Pyridinemethanamine, 5-fluoro- (9CI) (CA INDEX NAME)

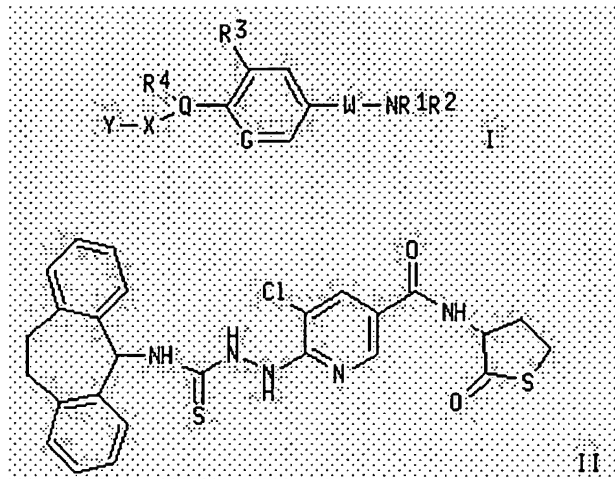


L11 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

ACCESSION NUMBER: 2003:490976 HCAPLUS  
DOCUMENT NUMBER: 139:69151  
TITLE: Preparation of pyridinecarboxamides and -sulfonamides as bradykinin B2 receptor antagonists  
INVENTOR(S): Cheng, Yun-Xing; Luo, Xuehong; Tomaszewski, Mirosław; Walpole, Christopher  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.  
SOURCE: PCT Int. Appl., 191 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003051276	A2	20030626	WO 2002-SE2354	20021217
WO 2003051276	A3	20031120		
WO 2003051276	B1	20040408		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2468978	AA	20030626	CA 2002-2468978	20021217
AU 2002359150	A1	20030630	AU 2002-359150	20021217
EP 1458684	A2	20040922	EP 2002-793663	20021217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005518374	T2	20050623	JP 2003-552210	20021217
US 2005245503	A1	20051103	US 2004-498864	20040616
PRIORITY APPLN. INFO.:			SE 2001-4326	A 20011219
			WO 2002-SE2354	W 20021217
OTHER SOURCE(S):		MARPAT 139:69151		
GI				



AB Pyridines I [G, Q = N, CH; W = linking group; X = (un)substituted NHCH<sub>2</sub>NH, NHCH:CHNH; Y = dibenzocycloheptyl, heterodibenzocycloheptyl; R<sub>1</sub>, R<sub>2</sub> = H, acyl, alkoxycarbonyl, (un)substituted alkyl, cycloalkyl, aryl, heterocyclyl; R<sub>3</sub> = H, halogen, alkyl; R<sub>4</sub> = h, (un)substituted hydrocarbonyl] were prepd. for use as bradykinin B<sub>2</sub> receptor antagonists in the treatment of pain and have K<sub>i</sub> for human B<sub>2</sub> receptor binding of 5-5000 nM. Thus, 5-amino-10,11-dihydrodibenzo[a,d]cycloheptene was converted to the isothiocyanate and treated with 5-chloro-6-hydrazinonicotinic acid, followed by D-homocysteine thiolactone to give the pyridinecarboxamide II.

IT 398457-04-0P 549531-03-5P

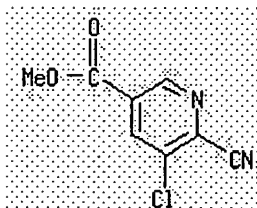
RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(prepn. of pyridinecarboxamides and -sulfonamides as bradykinin B<sub>2</sub> receptor antagonists)

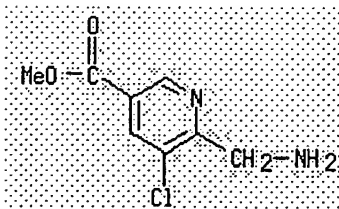
RN 398457-04-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-chloro-6-cyano-, methyl ester (9CI) (CA INDEX NAME)



RN 549531-03-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-(aminomethyl)-5-chloro-, methyl ester (9CI) (CA INDEX NAME)

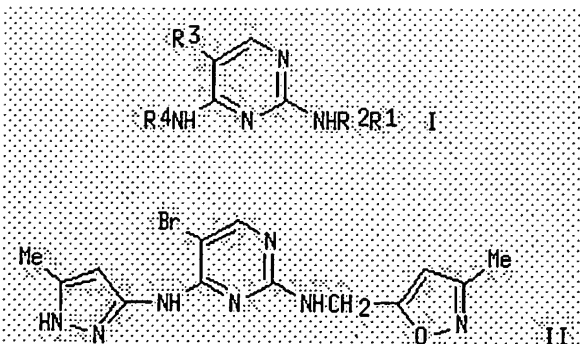


L11 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

ACCESSION NUMBER: 2003:454299 HCAPLUS  
DOCUMENT NUMBER: 139:36535  
TITLE: Preparation of pyrimidine derivatives as modulators of insulin-like growth factor-1 receptor (IGF-1)  
INVENTOR(S): Barlaam, Bernard; Pape, Andrew; Thomas, Andrew  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.  
SOURCE: PCT Int. Appl., 78 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2003048133</u>	A1	20030612	<u>WO 2002-SE2221</u>	20021203
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2467838</u>	AA	20030612	<u>CA 2002-2467838</u>	20021203
<u>AU 2002365864</u>	A1	20030617	<u>AU 2002-365864</u>	20021203
<u>BR 2002014605</u>	A	20040914	<u>BR 2002-14605</u>	20021203
<u>EP 1456182</u>	A1	20040915	<u>EP 2002-791165</u>	20021203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
<u>CN 1617858</u>	A	20050518	<u>CN 2002-827802</u>	20021203
<u>JP 2005515998</u>	T2	20050602	<u>JP 2003-549325</u>	20021203
<u>ZA 2004004223</u>	A	20050829	<u>ZA 2004-4223</u>	20040528
<u>NO 2004002872</u>	A	20040706	<u>NO 2004-2872</u>	20040706
<u>US 2005054638</u>	A1	20050310	<u>US 2004-497744</u>	20041108
PRIORITY APPLN. INFO.:			<u>SE 2001-4140</u>	A 20011207
			<u>WO 2002-SE2221</u>	W 20021203
OTHER SOURCE(S):	MARPAT	139:36535		
GI				



AB Pyrimidinediamines I [ R1, R4 = (un)substituted heteroarom.; R2 = alkyl, haloalkyl, hydroxyalkyl, alkoxy (sic); R3 = H, halogen, CF3] were prepd. for use as modulators of IGF-1 in the treatment of cancer with IC50 in the IGF-1R kinase assay of ? 100  $\mu$ M and in the IGF-stimulated cell proliferation test of ? 50  $\mu$ M. Thus, 5-bromo-2,4-dichloropyrimidine was treated with 3-amino-5-methyl-1H-pyrazole, followed by 5-aminomethyl-3-methylisoxazole hydrochloride to give the diamine II.

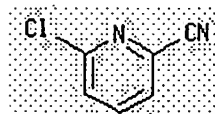
IT 33252-29-8, 6-Chloro-2-pyridinecarbonitrile

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(prepn. of pyrimidine derivs. as modulators of insulin-like growth factor-1 receptor (IGF-1))

RN 33252-29-8 HCAPLUS

CN 2-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME)



IT 188637-75-4P, 2-Aminomethyl-6-chloropyridine

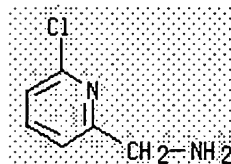
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(Preparation); RACT (Reactant or reagent)

(prepn. of pyrimidine derivs. as modulators of insulin-like growth factor-1 receptor (IGF-1))

RN 188637-75-4 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text Citing References

ACCESSION NUMBER:

2003:16682 HCAPLUS

DOCUMENT NUMBER:

138:198146

TITLE:

Metabolism-Directed Optimization of 3-Aminopyrazinone Acetamide Thrombin Inhibitors. Development of an Orally Bioavailable Series Containing P1 and P3 Pyridines

AUTHOR(S):

Burgey, Christopher S.; Robinson, Kyle A.; Lyle, Terry A.; Sanderson, Philip E. J.; Lewis, S. Dale; Lucas, Bobby J.; Krueger, Julie A.; Singh, Rominder; Miller-Stein, Cynthia; White, Rebecca B.; Wong, Bradley; Lyle, Elizabeth A.; Williams, Peter D.; Coburn, Craig A.; Dorsey, Bruce D.; Barrow, James C.; Stranieri, Maria T.; Holahan, Marie A.; Sitko, Gary R.; Cook, Jacquelyn J.; McMasters, Daniel R.; McDonough, Colleen M.; Sanders, William M.; Wallace, Audrey A.; Clayton, Franklin C.; Bohn, Dennis; Leonard, Yvonne M.; Detwiler, Theodore J., Jr.; Lynch, Joseph J., Jr.; Yan, Youwei; Chen, Zhongguo; Kuo, Lawrence; Gardell, Stephen J.; Shafer, Jules A.; Vacca, Joseph P.

CORPORATE SOURCE: Departments of Medicinal Chemistry, Biological Chemistry, Drug Metabolism Molecular Systems, Structural Biology and Pharmacology, Merck Research Laboratories, West Point, PA, 19486, USA

SOURCE: Journal of Medicinal Chemistry (2003), 46(4), 461-473  
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:198146

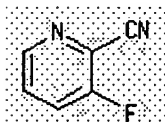
AB Recent efforts in the field of thrombin inhibitor research have focused on the identification of compds. with good oral bioavailability and pharmacokinetics. In this manuscript we describe a metab.-based approach to the optimization of the 3-(2-phenethylamino)-6-methylpyrazinone acetamide template which resulted in the modification of each of the three principal components (i.e., P1, P2, P3) comprising this series. As a result of these studies, several potent thrombin inhibitors were identified which exhibit high levels of oral bioavailability and long plasma half-lives.

IT 97509-75-6 312904-99-7

RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
(metab.-directed optimization of 3-aminopyrazinone acetamide thrombin inhibitors and structure-activity relationship)

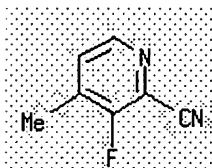
RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



RN 312904-99-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro-4-methyl- (9CI) (CA INDEX NAME)

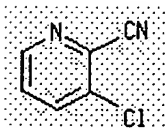


IT 38180-46-0P 312905-00-3P

RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)  
(metab.-directed optimization of 3-aminopyrazinone acetamide thrombin inhibitors and structure-activity relationship)

RN 38180-46-0 HCAPLUS

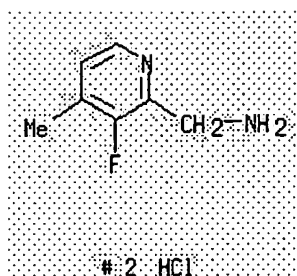
CN 2-Pyridinecarbonitrile, 3-chloro- (9CI) (CA INDEX NAME)



RN 312905-00-3 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-4-methyl-, dihydrochloride (9CI) (CA INDEX NAME)

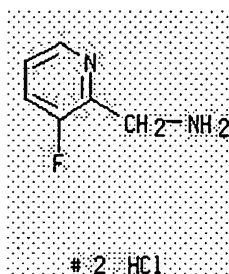


IT 312904-49-7P 500305-98-6PRL: SPN (Synthetic preparation); **PREP (Preparation)**

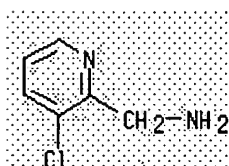
(metab.-directed optimization of 3-aminopyrazinone acetamide thrombin inhibitors and structure-activity relationship)

RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)

RN 500305-98-6 HCAPLUS

CN 2-Pyridinemethanamine, 3-chloro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

38

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Citing References
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ACCESSION NUMBER: 2002:965130 HCAPLUS

DOCUMENT NUMBER: 138:39286

TITLE: Preparation of 2-(pyridin-4-yl)acetamides as thrombin inhibitors

INVENTOR(S): Barrow, James C.; Coburn, Craig; Selnick, Harold G.; Ngo, Phung L.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 61 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

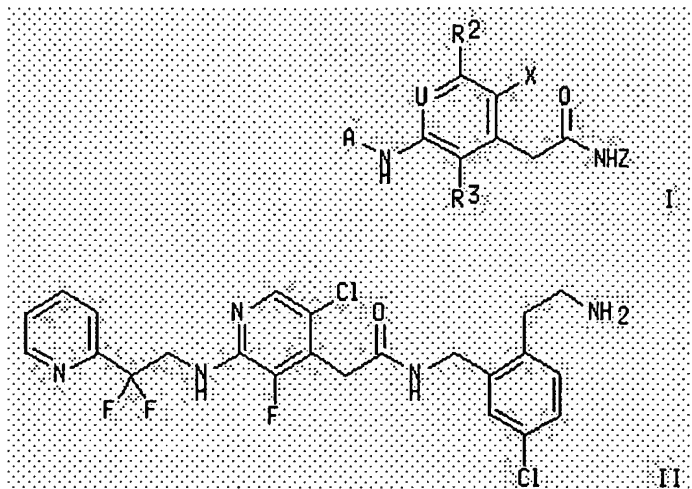
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002193398	A1	20021219	US 2002-71422	20020208
US 6610701	B2	20030826		
PRIORITY APPLN. INFO.:			US 2001-267960P	P 20010209

OTHER SOURCE(S) :  
GI

MARPAT 138:39286



AB The title compds. [I; U = N, CH; A = CH<sub>2</sub>CY<sub>2</sub>R<sub>1</sub>, SO<sub>2</sub>CH<sub>2</sub>R<sub>1</sub>; R<sub>1</sub> = (un)substituted unsatd. 6-membered non-heterocyclyl, satd. 6-membered heterocyclyl, 1-oxidopyridyl; R<sub>2</sub> = H, F; R<sub>3</sub> = H, halo; X = H, halo, alkyl, CN, CF<sub>3</sub>; Y = H, alkyl, F; Z = CR<sub>12</sub>R<sub>13</sub>(CH<sub>2</sub>)<sub>0-1</sub>R<sub>4</sub>; R<sub>4</sub> = (un)substituted unsatd. 6-membered non-heterocyclyl, unsatd. 6-membered monocyclic heterocyclyl, unsatd. 9-10 membered bicyclic heterocyclyl, CH<sub>2</sub>CONHC(:NH)NH<sub>2</sub>; R<sub>12</sub>, R<sub>13</sub> = H, alkyl] and their salts, useful in inhibiting thrombin and treating blood coagulation and cardiovascular disorders, were prepd. and formulated. E.g., a multi-step synthesis of II which showed K<sub>i</sub> of < 20 nM against human thrombin, was given.

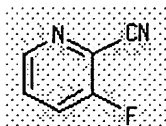
IT 97509-75-6, 2-Cyano-3-fluoropyridine

RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(prepn. of 2-(pyridin-4-yl)acetamides as thrombin inhibitors)

RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



IT 312904-49-7P

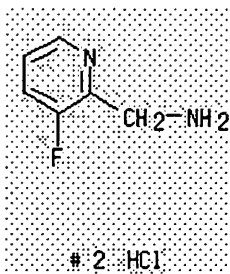
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(**Preparation**); RACT (Reactant or reagent)

(prepn. of 2-(pyridin-4-yl)acetamides as thrombin inhibitors)

RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)

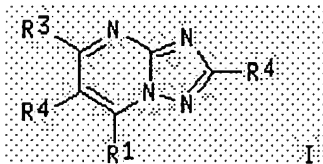


L11 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	English References
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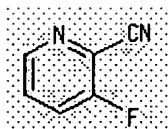
ACCESSION NUMBER: 2002:637565 HCAPLUS  
DOCUMENT NUMBER: 137:185499  
TITLE: Preparation of triazolopyrimidines as thrombin inhibitors  
INVENTOR(S): Williams, Peter D.; Coburn, Craig; Burgey, Christopher; Morrisette, Matthew M.  
PATENT ASSIGNEE(S): Merck & Co., Inc., USA  
SOURCE: PCT Int. Appl., 184 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2002064211</u>	A1	20020822	<u>WO 2002-US4654</u>	20020205
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
<u>PRIORITY APPLN. INFO.:</u>			<u>US 2001-267813P</u>	P 20010209
OTHER SOURCE(S):	MARPAT 137:185499			
GI				



AB Title compds. [I; R1 = H, halo, OH, NH(CH<sub>2</sub>)<sub>n</sub>R<sub>5</sub>, NHCH<sub>2</sub>CF<sub>2</sub>R<sub>5</sub>, etc.; n = 1-3; R<sub>2</sub> = H, (CH<sub>2</sub>)<sub>m</sub>R<sub>6</sub>, SO<sub>2</sub>R<sub>6</sub>; m = 0-2; R<sub>3</sub> = H, alkyl, cycloalkyl, CF<sub>3</sub>; R<sub>2</sub>R<sub>3</sub> = atoms to form a 5-7 membered nonheterocyclic ring; R<sub>4</sub> = CH<sub>2</sub>R<sub>7</sub>, NH(CH<sub>2</sub>)<sub>m</sub>R<sub>7</sub>; R<sub>5</sub> = H, pyridine oxide, tetrahydrothiophene dioxide, (substituted) (hetero)cyclyl, etc.; R<sub>6</sub> = pyridine oxide, (substituted) (hetero)cyclyl, etc.; R<sub>7</sub> = (substituted) Ph, pyridyl], were prepd. Thus, 3-(2-methyl-5-chlorophenylamino)-5-amino-1,2,4-triazole (prepn. given) and Et acetoacetate in HOAc were heated to reflux for 18 h. to give 2-(2-methyl-5-chlorophenylamino)-5-methyl-7-hydroxy-1,2,4-triazolo[1,5-a]pyrimidine. The latter was refluxed 1 h with POC1<sub>3</sub> to give the 7-chloro deriv. which was heated with 2-(2-pyridyl)ethylamine at 100° for 30 min. to give 2-(2-methyl-5-chlorophenylamino)-5-methyl-7-[2-(2-pyridyl)ethylamino]-1,2,4-triazolo[1,5-a]pyrimidine dihydrochloride (II). I inhibited thrombin with IC<sub>50</sub><24 nM. II drug compns. are given.

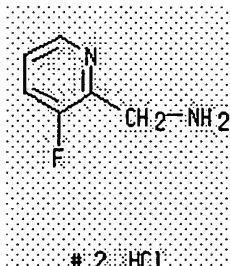
IT 97509-75-6, 3-Fluoro-2-pyridinenitrile  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of triazolopyrimidines as thrombin inhibitors)  
RN 97509-75-6 HCAPLUS  
CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)

IT **312904-49-7P**RL: RCT (Reactant); SPN (Synthetic preparation); **PREP****(Preparation)**; RACT (Reactant or reagent)

(prepn. of triazolopyrimidines as thrombin inhibitors)

RN **312904-49-7** HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



# 2 HCl

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Cited References
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ACCESSION NUMBER: 2002:157737 HCAPLUS

DOCUMENT NUMBER: 136:200109

TITLE: Process for preparation of 2-aminomethylpyridines by  
catalytic hydrogenation of 2-cyanopyridines.INVENTOR(S): Dann, Norman; Riordan, Peter Dominic; Amin, Mehul  
Rasikchandra; Mellor, Michael

PATENT ASSIGNEE(S): Aventis CropScience SA, Fr.

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

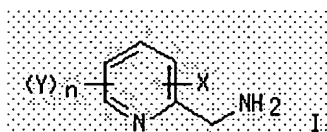
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2002016322</u>	A2	20020228	<u>WO 2001-EP10984</u>	20010821
<u>WO 2002016322</u>	A3	20020606		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
<u>EP 1199305</u>	A1	20020424	<u>EP 2001-420128</u>	20010607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>CA 2415842</u>	AA	20020228	<u>CA 2001-2415842</u>	20010821

<u>AU 2002013948</u>	A5	20020304	<u>AU 2002-13948</u>	20010821
<u>EP 1311483</u>	A2	20030521	<u>EP 2001-982337</u>	20010821
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>BR 2001013259</u>	A	20030715	<u>BR 2001-13259</u>	20010821
<u>JP 2004506716</u>	T2	20040304	<u>JP 2002-521198</u>	20010821
<u>RU 2266900</u>	C2	20051227	<u>RU 2003-107931</u>	20010821
<u>CN 1721406</u>	A	20060118	<u>CN 2005-10088220</u>	20010821
<u>US 2004049048</u>	A1	20040311	<u>US 2003-362728</u>	20030611
<u>US 6921828</u>	B2	20050726		
<u>US 2005250947</u>	A1	20051110	<u>US 2005-177118</u>	20050708
<u>PRIORITY APPLN. INFO.:</u>			<u>GB 2000-21066</u>	A 20000825
			<u>GB 2000-25616</u>	A 20001019
			<u>EP 2001-420128</u>	A 20010607
			<u>CN 2001-814622</u>	A3 20010821
			<u>WO 2001-EP10984</u>	W 20010821
			<u>US 2003-362728</u>	A1 20030611
OTHER SOURCE(S):			CASREACT 136:200109; MARPAT 136:200109	
GI				



AB Title compds. (I; X = halo; Y = halo, haloalkyl, alkoxycarbonyl, alkylsulfonyl; n = 0-3) were prep'd. by catalytic hydrogenation of the corresponding 2-cyano derivs. Thus, 3-chloro-2-cyano-5-trifluoromethylpyridine (prepn. given) was hydrogenated in MeOH over Pd/C contg. HCl at 1 atm. to give 95-97% 2-aminomethyl-3-chloro-5-trifluoromethylpyridine hydrochloride.

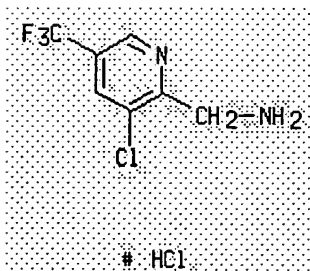
IT **326476-49-7P**, 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine hydrochloride

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); **PREP** (Preparation)

(process for prep'n. of 2-aminomethylpyridines by catalytic hydrogenation of 2-cyanopyridines)

RN 326476-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-chloro-5-(trifluoromethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



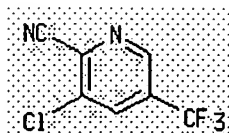
IT **80194-70-3P**

RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(process for prep'n. of 2-aminomethylpyridines by catalytic hydrogenation of 2-cyanopyridines)

RN 80194-70-3 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)



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Full  
Text

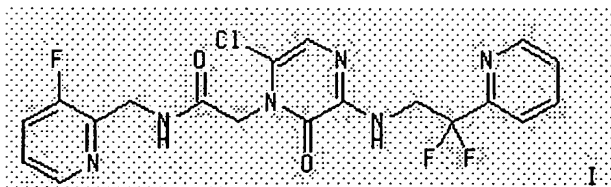
Orig  
References

ACCESSION NUMBER: 2001:886079 HCAPLUS  
DOCUMENT NUMBER: 136:6012  
TITLE: Pyrazinone thrombin inhibitors, namely  
N-((3-fluoro-2-pyridyl)methyl)-3-((2,2-difluoro-2-(2-pyridyl)ethyl)amino)-6-chloropyrazin-2-one-1-acetamide  
anhydrous and monohydrate polymorphs, and their  
preparation and use as antithrombotics  
INVENTOR(S): Cowden, Cameron J.; Cooper, V. Brett; Rush, Daniel J.;  
Frech, Patricia  
PATENT ASSIGNEE(S): Merck & Co., Inc., USA  
SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092234	A1	20011206	WO 2001-US17268	20010525
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002004507	A1	20020110	US 2001-870560	20010531
US 6521625	B2	20030218		

PRIORITY APPLN. INFO.:  
GI

US 2000-208665P P 20000601



AB The compds. of the invention are cryst. polymorphs of N-((3-fluoro-2-pyridyl)methyl)-3-((2,2-difluoro-2-(2-pyridyl)ethyl)amino)-6-chloropyrazin-2-one-1-acetamide (I) and its monohydrate, useful in inhibiting thrombin (no data) and assocd. thrombotic occlusions. In particular, the invention compds. are selected from: I polymorphic cryst. anhyd. form B (IB), I polymorphic cryst. type A monohydrate (IA.H<sub>2</sub>O), and I polymorphic cryst. type B monohydrate (IB.H<sub>2</sub>O), or a pharmaceutically acceptable salt thereof. I was prepd. in 9 steps: (1) hydrogenation of

2-cyano-3-fluoropyridine to give 2-aminomethyl-3-fluoropyridine di-HCl (II); (2) condensation of  $\text{H}_2\text{NCH}_2\text{CO}_2\text{Et}$  with  $\text{ClCOCO}_2\text{Et}$  to give  $\text{EtO}_2\text{CCONHCH}_2\text{CO}_2\text{Et}$ ; (3) amidation of the latter with  $(\text{MeO})_2\text{CHCH}_2\text{NH}_2$ ; (4) acid cyclization of the product to give Et 3-hydroxypyrazin-2(1H)-one-1-acetate; (5) treatment of the latter with  $\text{POBr}_3$  to give Et 3-bromopyrazin-2(1H)-one-1-acetate; (6) coupling of this bromide with 2,2-difluoro-2-(2-pyridyl)ethylamine; (7) chlorination of the 6-position with NCS; (8) alk. sapon. of the ester, and (9) amidation of the acid with II. The polymorphs were obtained by crystn. from the following solvents: IA from 2-methyl-1-propanol, m.p. 185?; IB from 2-butanone, m.p. 179?; IA.H<sub>2</sub>O from aq. MeCN; and IB.H<sub>2</sub>O from aq. 2-propanol contg. aq. HCl. The 4 forms gave characteristic X-ray powder diffractograms. Several pharmaceutical forms are also described.

IT 312904-49-7P, 2-(Aminomethyl)-3-fluoropyridine dihydrochloride

312904-51-1P, 2-(Aminomethyl)-3-fluoropyridine

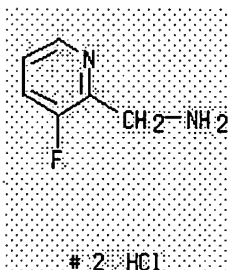
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of pyrazinone deriv. polymorphs as thrombin inhibitors)

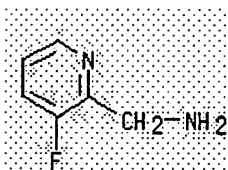
RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



RN 312904-51-1 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro- (9CI) (CA INDEX NAME)



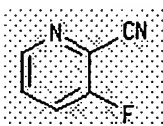
IT 97509-75-6, 2-Cyano-3-fluoropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; prepn. of pyrazinone deriv. polymorphs as thrombin inhibitors)

RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

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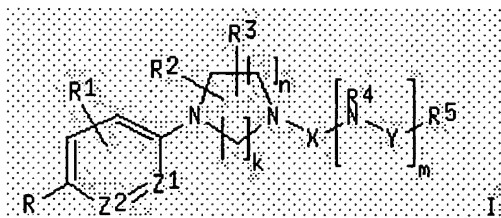
THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN



ACCESSION NUMBER: 2001:857479 HCAPLUS  
 DOCUMENT NUMBER: 136:600  
 TITLE: Pharmaceuticals containing antiandrogen cyanophenyl compounds  
 INVENTOR(S): Taniguchi, Nobuaki; Kinoyama, Isao; Kamikubo, Takashi; Toshima, Hiroshi; Samizu, Kiyohiro; Kawanami, Eiji; Imamura, Masakazu; Moritomo, Hiroyuki; Matsuhisa, Akira; Hirano, Hiroaki; Miyasaki, Yoji; Nozawa, Shigenori; Okada, Minoru; Koutoku, Hiroshi; Ota, Mitsuaki  
 PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001328938	A2	20011127	JP 2001-69833	20010313
PRIORITY APPLN. INFO.:			JP 2000-75008	A 20000317
OTHER SOURCE(S):		MARPAT 136:600		
GI				



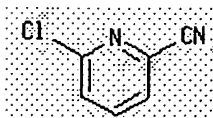
AB Pharmaceuticals, useful for treatment of prostatic cancer, prostatic hypertrophy, virilism, etc., contain cyanophenyl compds. I [R = cyano, NO<sub>2</sub>; R<sub>1</sub> = H, halo, cyano, haloalkyl, NO<sub>2</sub>, etc.; R<sub>2</sub>-R<sub>4</sub> = H, lower alkyl, (alkyl)carbamoyl, etc.; R<sub>5</sub> = lower alkyl, arylalkoxy, CO<sub>2</sub>H, lower alkoxy, carbonyl, etc.; X = CO, C(S), SO<sub>2</sub>; Y = bond, lower alkylene, CO, SO<sub>2</sub>; Z<sub>1</sub>, Z<sub>2</sub> = CH, N; k, n = 1-3; m = 0, 1] or their salts. (2R,5S)-I (R = cyano, R<sub>1</sub> = 3-CF<sub>3</sub>, R<sub>2</sub> = 2-Me, R<sub>3</sub> = 5-Me, k = 2, m = n = 1, X = CO, R<sub>4</sub> = H, R<sub>5</sub> = 2-bromo-4-pyridyl) (prepn. given) in vitro bound to rat androgen receptor with K<sub>i</sub> of 7.56 nM.

IT 33252-29-8

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of cyanophenyl compds. as antiandrogens)

RN 33252-29-8 HCAPLUS

CN 2-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME)



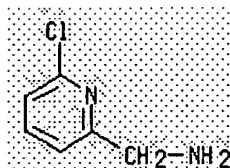
IT 188637-75-4P, 2-Aminomethyl-6-chloropyridine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (prepn. of cyanophenyl compds. as antiandrogens)

RN 188637-75-4 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro- (9CI) (CA INDEX NAME)





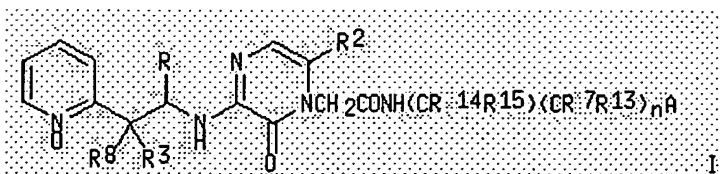
L11 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Chemical References
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ACCESSION NUMBER: 2001:396862 HCAPLUS  
 DOCUMENT NUMBER: 135:19662  
 TITLE: Preparation of pyrazinones as thrombin inhibitors.  
 INVENTOR(S): Burgey, Christopher; Isaacs, Richard C.; Dorsey, Bruce D.; Robinson, Kyle A.; Staas, Donnette; Sanderson, Philip E.; Barrow, James  
 PATENT ASSIGNEE(S): Merck & Co., Inc., USA  
 SOURCE: PCT Int. Appl., 137 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038323	A1	20010531	WO 2000-US31787	20001120
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2391012	AA	20010531	CA 2000-2391012	20001120
EP 1259506	A1	20021127	EP 2000-983727	20001120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003514905	T2	20030422	JP 2001-540086	20001120
US 6387911	B1	20020514	US 2000-717566	20001121
PRIORITY APPLN. INFO.:			US 1999-167070P	P 19991123
			US 2000-216889P	P 20000707
			WO 2000-US31787	W 20001120

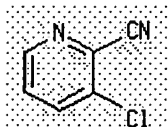
OTHER SOURCE(S): MARPAT 135:19662  
 GI



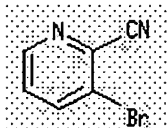
AB Title compds. [I; A = (substituted) pyridinyl (oxide), Ph; R = H, alkyl, haloalkyl, OR9, N(R9)2, CO2R9, etc.; R2 = H, alkyl, CF3, halo, cyano, cyanoalkyl; R3, R7, R8, R13 = H, halo, alkyl; R14, R15 = H, (substituted) alkyl; n = 0, 1], were prepd. (no data). Thus, 3-[2,2-difluoro-2-(2-

pyridyl-N-oxide)ethylamino]-6-chloropyrazin(1H)-2-one-1-acetic acid (prepn. given), 2-aminomethyl-3-fluoropyridine dihydrochloride, EDC, HOAT, and N-methylmorpholine were stirred overnight to give 3-fluoro-2-pyridylmethyl-3-[2,2-difluoro-2-(2-pyridyl-N-oxide)ethylamino]-6-chloropyrazin-2-one-1-acetamide. Drug formulations contg. the latter were given.

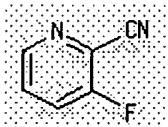
IT 38180-46-0, 3-Chloro-2-cyanopyridine 55758-02-6,  
 3-Bromo-2-cyanopyridine 97509-75-6, 2-Cyano-3-fluoropyridine  
 RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
 (prepn. of pyrazinones as thrombin inhibitors)  
 RN 38180-46-0 HCAPLUS  
 CN 2-Pyridinecarbonitrile, 3-chloro- (9CI) (CA INDEX NAME)



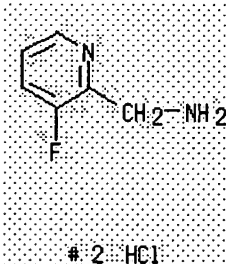
RN 55758-02-6 HCAPLUS  
 CN 2-Pyridinecarbonitrile, 3-bromo- (9CI) (CA INDEX NAME)



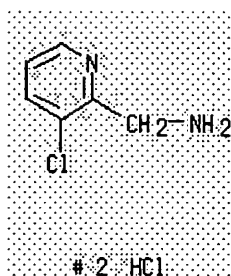
RN 97509-75-6 HCAPLUS  
 CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



IT 312904-49-7P 342816-31-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**  
 (**Preparation**); RACT (Reactant or reagent)  
 (prepn. of pyrazinones as thrombin inhibitors)  
 RN 312904-49-7 HCAPLUS  
 CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



RN 342816-31-3 HCAPLUS  
 CN 2-Pyridinemethanamine, 3-chloro-, dihydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full  
Text

Cited  
References

ACCESSION NUMBER: 2000:881144 HCAPLUS  
DOCUMENT NUMBER: 134:42142  
TITLE: Preparation of pyrazinone thrombin inhibitors  
INVENTOR(S): Burgey, Christopher S.; Robinson, Kyle A.; Williams, Peter D.; Coburn, Craig A.; Lyle, Terry A.; Sanderson, Philip E.  
PATENT ASSIGNEE(S): Merck and Co., Inc., USA  
SOURCE: PCT Int. Appl., 98 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000075134	A1	20001214	WO 2000-US15140	20000601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2373999	AA	20001214	CA 2000-2373999	20000601
BR 2000011260	A	20020319	BR 2000-11260	20000601
EP 1189899	A1	20020327	EP 2000-939492	20000601
EP 1189899	B1	20030212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6455532	B1	20020924	US 2000-585112	20000601
TR 200103491	T2	20021223	TR 2001-200103491	20000601
JP 2003501426	T2	20030114	JP 2001-502417	20000601
AT 232527	E	20030215	AT 2000-939492	20000601
EE 200100641	A	20030217	EE 2001-641	20000601
AU 761982	B2	20030612	AU 2000-54571	20000601
ES 2190417	T3	20030801	ES 2000-939492	20000601
NZ 515454	A	20040227	NZ 2000-515454	20000601
ZA 2001009774	A	20021128	ZA 2001-9774	20011128
NO 2001005887	A	20020123	NO 2001-5887	20011203
HR 2001000903	A1	20030430	HR 2001-903	20011204
BG 106263	A	20020628	BG 2001-106263	20011221

PRIORITY APPLN. INFO.:US 1999-137538P

P 19990604

US 1999-144291P

P 19990716

WO 2000-US15140

W 20000601

OTHER SOURCE(S): MARPAT 134:42142

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

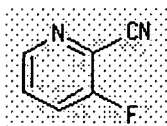
AB The title compds. [I; W = H, (un)satd. (un)substituted 5-7 membered mono- or 9-10 membered fused bicyclic heterocyclic ring, (un)substituted 5-7 membered or 9-10 membered fused bicyclic nonheterocyclic satd. ring, etc.; R3, X = H, halo, CN, etc.; A = II-IV (wherein Y1, Y2 = H, alkyl, alkoxy, etc.; b = 0-1)], useful in inhibiting thrombin and assocd. thrombotic occlusions, were prepd. and formulated. E.g., a multi-step synthesis of V which showed Ki of ? 1 nM in vitro assay of human  $\alpha$ -thrombin, was given.

IT 97509-75-6, 2-Cyano-3-fluoropyridine

RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
(prepn. of pyrazinone thrombin inhibitors)

RN 97509-75-6 HCAPLUS

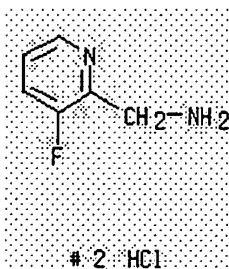
CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)

IT 312904-49-7P 312904-99-7P 312905-00-3P

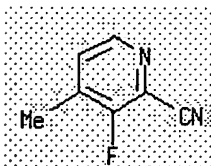
RL: **RCT (Reactant)**; SPN (Synthetic preparation); **PREP (Preparation)**; RACT (Reactant or reagent)  
(prepn. of pyrazinone thrombin inhibitors)

RN 312904-49-7 HCAPLUS

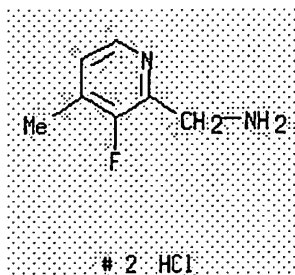
CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)

RN 312904-99-7 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro-4-methyl- (9CI) (CA INDEX NAME)

RN 312905-00-3 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-4-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT:

8

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text	Cited References
--------------	---------------------

ACCESSION NUMBER:

2000:880965 HCAPLUS

DOCUMENT NUMBER:

134:42134

TITLE:

Preparation of 1,2,4,8-tetrahydro-2,8-dioxo-7H-pyrido[3,4-d][1,3]oxazine-7-acetamides as thrombin inhibitors

INVENTOR(S):

Coburn, Craig A.; Burgey, Christopher S.

PATENT ASSIGNEE(S):

Merck &amp; Co., Inc., USA

SOURCE:

PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000074682	A1	20001214	WO 2000-US14921	20000531
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2374654	AA	20001214	CA 2000-2374654	20000531
EP 1189618	A1	20020327	EP 2000-939426	20000531
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2003501389	T2	20030114	JP 2001-501218	20000531
US 6350745	B1	20020226	US 2000-585740	20000602
PRIORITY APPLN. INFO.:			US 1999-137644P	P 19990604
			WO 2000-US14921	W 20000531
OTHER SOURCE(S):		MARPAT 134:42134		
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; A = II-IV (wherein Y1, Y2 = H, alkyl, alkoxy, etc.);

b = 0-1); R1, R2 = H, (un)substituted Ph, CF3, etc.; R9 = alkyl] and their pharmaceutically acceptable salts, useful as thrombin inhibitors and having therapeutic value in for example, preventing coronary artery disease, were prepd. and formulated. Thus, reacting the carboxylic acid V with 3-fluoro-2-aminomethylpyridine in the presence of EDC, HOBT and N-methylmorpholine in DMF afforded VI.HCl which showed Ki of < 100 nM against human trypsin.

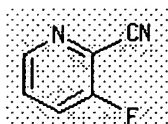
IT 97509-75-6, 2-Cyano-3-fluoropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of 1,2,4,8-tetrahydro-2,8-dioxo-7H-pyrido[3,4-d][1,3]oxazine-7-acetamides as thrombin inhibitors)

RN 97509-75-6 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-fluoro- (9CI) (CA INDEX NAME)



IT 312904-49-7P

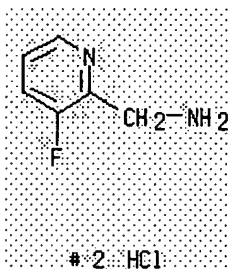
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(Preparation); RACT (Reactant or reagent)

(prepn. of 1,2,4,8-tetrahydro-2,8-dioxo-7H-pyrido[3,4-d][1,3]oxazine-7-acetamides as thrombin inhibitors)

RN 312904-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-fluoro-, dihydrochloride (9CI) (CA INDEX NAME)



REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

Full Text Cited References

ACCESSION NUMBER: 2000:210118 HCAPLUS

DOCUMENT NUMBER: 132:237107

TITLE: Preparation of piperazino-substituted cyanophenyl derivatives as antiandrogen agents

INVENTOR(S): Taniguchi, Nobuaki; Kinoyama, Isao; Kamikubo, Takashi; Toyoshima, Akira; Samizu, Kiyohiro; Kawaminami, Eiji; Imamura, Masakazu; Moritomo, Hiroyuki; Matsuhisa, Akira; Hirano, Masaaki; Miyazaki, Yoji; Nozawa, Eisuke; Okada, Minoru; Koutoku, Hiroshi; Ohta, Mitsuaki

PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan; et al.

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

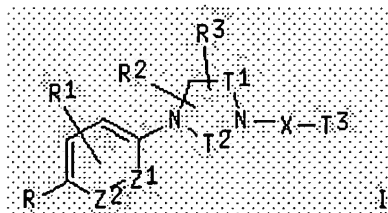
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>WO 2000017163</u>	A1	20000330	<u>WO 1999-JP5149</u>	19990921
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
<u>CA 2345146</u>	AA	20000330	<u>CA 1999-2345146</u>	19990921
<u>AU 9956544</u>	A1	20000410	<u>AU 1999-56544</u>	19990921
<u>AU 754529</u>	B2	20021121		
<u>BR 9914018</u>	A	20010703	<u>BR 1999-14018</u>	19990921
<u>EP 1122242</u>	A1	20010808	<u>EP 1999-943446</u>	19990921
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
<u>JP 3390744</u>	B2	20030331	<u>JP 2000-574073</u>	19990921
<u>JP 2003137873</u>	A2	20030514	<u>JP 2002-328498</u>	19990921
<u>CN 1129581</u>	B	20031203	<u>CN 1999-811198</u>	19990921
<u>RU 2221785</u>	C2	20040120	<u>RU 2001-107612</u>	19990921
<u>US 6673799</u>	B1	20040106	<u>US 2001-787672</u>	20010321
<u>US 2004010037</u>	A1	20040115	<u>US 2003-608341</u>	20030630
PRIORITY APPLN. INFO.:			<u>JP 1998-267508</u>	A 19980922
			<u>JP 1999-155398</u>	A 19990602
			<u>JP 2000-574073</u>	A3 19990921
			<u>WO 1999-JP5149</u>	W 19990921
			<u>US 2001-787672</u>	A3 20010321

OTHER SOURCE(S): MARPAT 132:237107

GI



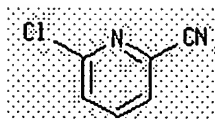
AB The title compds. I [T1 = (CH<sub>2</sub>)<sub>n</sub>; T2 = (CH<sub>2</sub>)<sub>k</sub>; T3 = (NR<sub>4</sub>Y)<sub>m</sub>R<sub>5</sub>; R = cyano, etc.; R1 = H, halo, etc.; R2 - R4 = H, alkyl, etc.; R5 = alkyl, etc.; k, n = 1 - 3; m = 0 or 1; X = CO, etc.; Z1, Z2 = CH, N; a proviso is given; Y = alkylene, etc.] are prep'd. These derivs. exhibit antiandrogen activities and are therefore useful in the prevention or treatment of prostatic cancer, prostatic hypertrophy and so forth. In an in vitro assay for inhibition of androgen binding to androgen receptors, (2R,5S)-N-(2-bromo-4-pyridyl)-4-(4-cyano-3-trifluoromethylphenyl)-2,5-dimethylpiperazine-1-carboxamide showed the K<sub>i</sub> value of 7.5 nM.

IT 33252-29-8RL: **RCT (Reactant)**; RACT (Reactant or reagent)

(prepn. of piperazino-substituted cyanophenyl derivs. as antiandrogen agents)

RN 33252-29-8 HCAPLUS

CN 2-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME)



IT 188637-75-4P, 2-Aminomethyl-6-chloropyridine

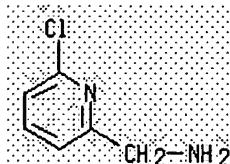
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP**

(**Preparation**); RACT (Reactant or reagent)

(prepn. of piperazino-substituted cyanophenyl derivs. as antiandrogen agents)

RN 188637-75-4 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

17 , THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

**Full Text** **Cited References**

ACCESSION NUMBER: 1998:236766 HCAPLUS

DOCUMENT NUMBER: 128:282788

TITLE: Preparation of (aminomethyl)pyridines from cyanopyridines

INVENTOR(S): Ueno, Toshiya; Kimura, Yoshikazu; Honta, Tomohiro; Kitasawa, Sadaya; Kimura, Osamu; Takuma, Yuki

PATENT ASSIGNEE(S): Nippon Fine Chemical Co., Ltd, Japan; Mitsubishi Chemical Industries Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

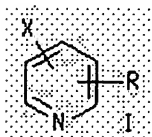
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10101646	A2	19980421	JP 1996-261865	19961002
			JP 1996-261865	19961002
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S):			CASREACT 128:282788; MARPAT 128:282788	
GI				



AB (Aminomethyl)pyridines I (R = CH<sub>2</sub>NH<sub>2</sub>; X = H, halo) are prepd. by hydrogenation of cyanopyridines I (R = cyano; X = same as above) in the presence of NH<sub>3</sub> and Mn-contg. Raney catalysts. 2-Chloro-3-cyanopyridine was hydrogenated over Mn-contg. Raney Co in the presence of NH<sub>3</sub>/BuOH at 35° and 10 kg/cm<sup>2</sup> for 6 h to give 90.9% 2-chloro-3-aminomethylpyridine.

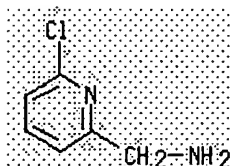
IT 188637-75-4P 205744-18-9P



RL: IMF (Industrial manufacture); **PREP (Preparation)**  
(prepn. of (aminomethyl)pyridines from cyanopyridines)

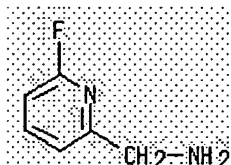
RN 188637-75-4 HCAPLUS

CN 2-Pyridinemethanamine, 6-chloro- (9CI) (CA INDEX NAME)



RN 205744-18-9 HCAPLUS

CN 2-Pyridinemethanamine, 6-fluoro- (9CI) (CA INDEX NAME)

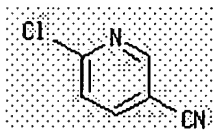


IT 33252-28-7, 2-Chloro-5-cyanopyridine

RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
(prepn. of (aminomethyl)pyridines from cyanopyridines)

RN 33252-28-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-chloro- (9CI) (CA INDEX NAME)



L11 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN

**Full Text** **References**

ACCESSION NUMBER: 1975:156097 HCAPLUS  
DOCUMENT NUMBER: 82:156097  
TITLE: 2,6-Bis(aminomethyl)pyridine  
INVENTOR(S): Matsumoto, Ikuo; Kubo, Katsuo  
PATENT ASSIGNEE(S): Inoue, Michiro; Shimamoto, Takio; Ishikawa, Masayuki;  
Ishikawa, Hisako  
SOURCE: Jpn. Tokkyo Koho, 3 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>JP 49040473</u>	B4	19741102	<u>JP 1970-86438</u>	19701003
PRIORITY APPLN. INFO.:			<u>JP 1970-86438</u>	19701003

GI For diagram(s), see printed CA Issue.

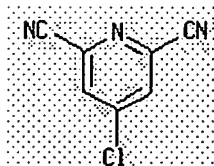
AB 2,6-Bis(aminomethyl)pyridine trihydrochlorides (I, R = H, Cl) were prepd. by hydrogenating the corresponding 2,6-dicyanopyridine in HCl-MeOH over Pd-C. E.g., a suspension of 5.16 g 2,6-dicyanopyridine in 100 ml MeOH was treated with 20 ml 40% HCl-MeOH and 1.5 g 10] Pd-C and 3 kg/cm<sup>3</sup> H at room temp. for ~10 min to give 9.3 g I (R = H).

IT 55306-66-6

RL: **RCT (Reactant)**; RACT (Reactant or reagent)  
(catalytic hydrogenation of)

RN 55306-66-6 HCAPLUS

CN 2,6-Pyridinedicarbonitrile, 4-chloro- (9CI) (CA INDEX NAME)

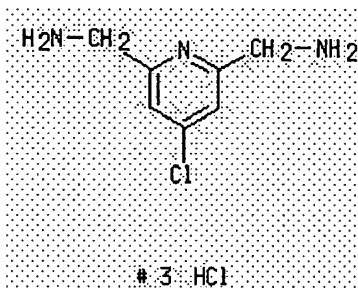


IT 55306-67-7P

RL: SPN (Synthetic preparation); **PREP (Preparation)**  
(prepn. of)

RN 55306-67-7 HCAPLUS

CN 2,6-Pyridinedimethanamine, 4-chloro-, trihydrochloride (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

L1 STRUCTURE UPLOADED  
L2 0 S L1  
L3 64 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006

L4 56 S L3/PREP

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006

L5 STRUCTURE UPLOADED  
L6 19 S L5  
L7 1726 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

L8 983 S L7/RCT

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006

FILE 'REGISTRY' ENTERED AT 14:54:31 ON 15 MAY 2006

FILE 'HCAPLUS' ENTERED AT 14:54:37 ON 15 MAY 2006

L9 30 S L8 AND L4  
L10 1 S L9 AND VANGELISTI, M?/AU  
L11 29 S L9 NOT L10

=> s 13 and 17  
           82 L3  
           1311 L7  
 L12          33 L3 AND L7

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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	176.07	519.51
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-22.50	-22.50

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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907-1966  
 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

L1          STRUCTURE UPLOADED  
 L2          0 S L1  
 L3          64 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 14:52:55 ON 15 MAY 2006

L4          56 S L3/PREP

FILE 'REGISTRY' ENTERED AT 14:53:02 ON 15 MAY 2006

L5          STRUCTURE UPLOADED  
 L6          19 S L5  
 L7          1726 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 14:54:12 ON 15 MAY 2006

L8          983 S L7/RCT

FILE 'HCAPLUS' ENTERED AT 14:54:19 ON 15 MAY 2006

FILE 'REGISTRY' ENTERED AT 14:54:31 ON 15 MAY 2006

FILE 'HCAPLUS' ENTERED AT 14:54:37 ON 15 MAY 2006

L9            30 S L8 AND L4  
L10           1 S L9 AND VANGELISTI, M?/AU  
L11           29 S L9 NOT L10  
L12           33 S L3 AND L7

FILE 'CAOLD' ENTERED AT 15:00:03 ON 15 MAY 2006

=> s l3 and l7  
     0 L3  
     41 L7  
L13         0 L3 AND L7  
  
=>



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(FILE 'HOME' ENTERED AT 14:51:04 ON 15 MAY 2006)

FILE 'REGISTRY' ENTERED AT 14:51:12 ON 15 MAY 2006

L1 STRUCTURE UPLOADED

L2 0 S L1

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L9 30 S L8 AND L4

L10 1 S L9 AND VANGELISTI, M?/AU

L11 29 S L9 NOT L10

L12 33 S L3 AND L7

FILE 'CAOLD' ENTERED AT 15:00:03 ON 15 MAY 2006

L13 0 S L3 AND L7

FILE 'CASREACT' ENTERED AT 15:04:40 ON 15 MAY 2006

L14 STRUCTURE UPLOADED

L15 0 S L14

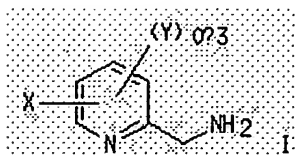
L16 4 S L14 FULL

=> d l16, abs fhit rx, 1-4

L16 ANSWER 1 OF 4 CASREACT COPYRIGHT 2006 ACS on STN

GI

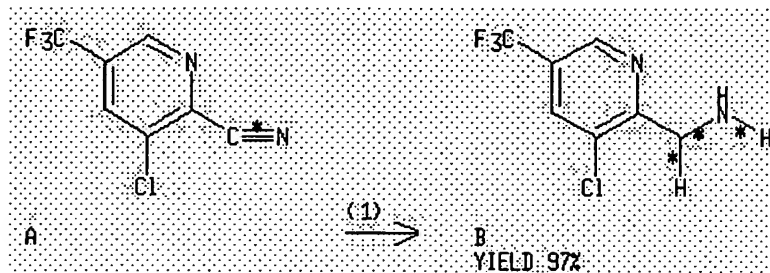
GI



AB The invention relates to a process for the prepn. of 2-aminomethylpyridine derivs. of formula I [wherein: X is halogen atom; each Y may be the same or different and may be a halogen atom, a halogenoalkyl, an alkoxycarbonyl or an alkylsulfonyl], useful as intermediates for prepn. of pesticides. 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine was prepd. via Raney Ni-catalyzed hydrogenation of 2-cyano-3-chloro-5-trifluoromethylpyridine with a yield of 97%. The advantages of the proposed prepn. of

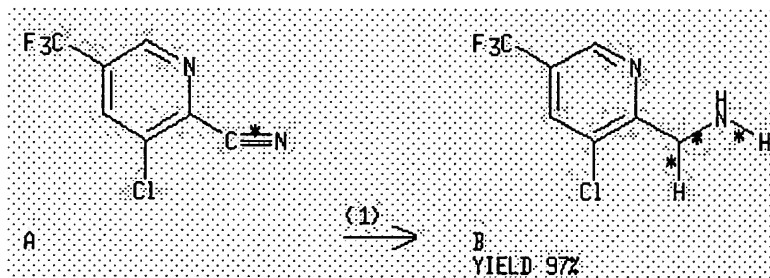
2-aminomethylpyridine derivs. include the use of Raney nickel catalyst instead of expensive Pd catalyst (the Pd-catalyzed hydrogenation suffers from the disadvantage of dehalogenation reaction; Pd is also very sensitive to catalysts poisons).

RX(1) OF 1      A ==> B



RX(1)      RCT    A 80194-70-3  
 RGT    C 1333-74-0 H2  
 PRO    B 175277-74-4  
 CAT    7440-02-0 Ni  
 SOL    64-19-7 AcOH  
 CON    SUBSTAGE(1) room temperature -> 40 deg C, pH 7  
           SUBSTAGE(2) 2 hours, 40 deg C, 18 bar, pH 7  
 NTE    Raney nickel used

RX(1) OF 1      A ==> B



RX(1)      RCT    A 80194-70-3  
 RGT    C 1333-74-0 H2  
 PRO    B 175277-74-4  
 CAT    7440-02-0 Ni  
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 NTE    Raney nickel used

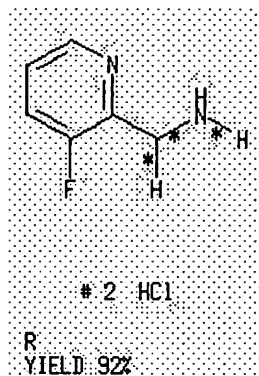
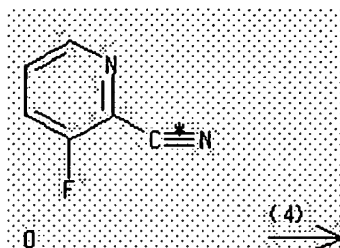
L16 ANSWER 2 OF 4 CASREACT COPYRIGHT 2006 ACS on STN

CHH  
 References

AB    A scaleable route to 2-(3-[(2,2-difluoro-2-(2-pyridyl)ethyl)amino]-6-chloro-2-oxohydropyrazinyl)-N-[(3-fluoro(2-pyridyl)methyl)acetamide (I) is described in which various scaleup issues were addressed to provide a safe, efficient, and robust route for the prepn. of multi-kilo amts. of

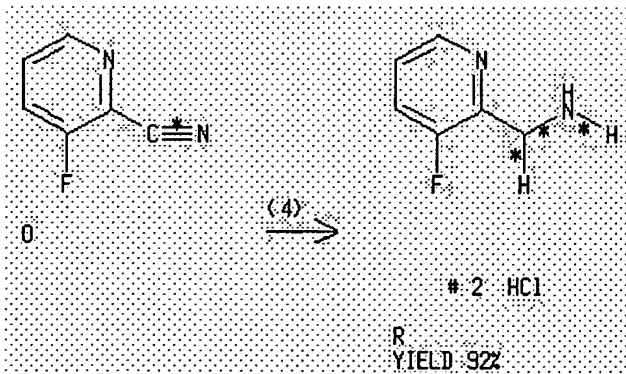
the compd. The use of expensive and toxic reagents, notably sodium azide, TMS-cyanide, and Deoxo-Fluor, and the need for specialist equipment were overcome in the prepn. of the key fluorinated intermediates 2,2-difluoro-2-(2-pyridyl)ethylamine and 2-aminomethyl-3-fluoropyridine. With minimal isolations and through processing of intermediates, the thrombin inhibitor I was isolated in 36% overall yield.

RX(4) OF 84 ...O ==> R...



RX(4) RCT O 97509-75-6  
 RGT S 7647-01-0 HCl, T 1333-74-0 H2  
 PRO R 312904-49-7  
 CAT 7440-05-3 Pd  
 SOL 64-17-5 EtOH  
 CON 18 hours, 20 deg C, 5 psi

RX(4) OF 84 ...O ==> R...



RX(4) RCT O 97509-75-6  
 RGT S 7647-01-0 HCl, T 1333-74-0 H2  
 PRO R 312904-49-7



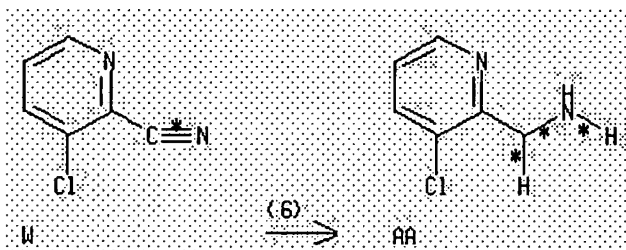
CAT 7440-05-3 Pd  
 SOL 64-17-5 EtOH  
 CON 18 hours, 20 deg C, 5 psi

L16 ANSWER 3 OF 4 CASREACT COPYRIGHT 2006 ACS on STN

### Citing References

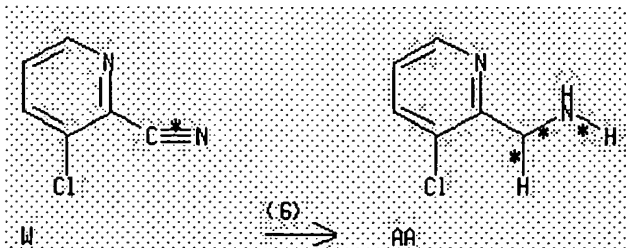
AB Recent efforts in the field of thrombin inhibitor research have focused on the identification of compds. with good oral bioavailability and pharmacokinetics. In this manuscript we describe a metab.-based approach to the optimization of the 3-(2-phenethylamino)-6-methylpyrazinone acetamide template which resulted in the modification of each of the three principal components (i.e., P1, P2, P3) comprising this series. As a result of these studies, several potent thrombin inhibitors were identified which exhibit high levels of oral bioavailability and long plasma half-lives.

RX(6) OF 261 ...W ==> AA...



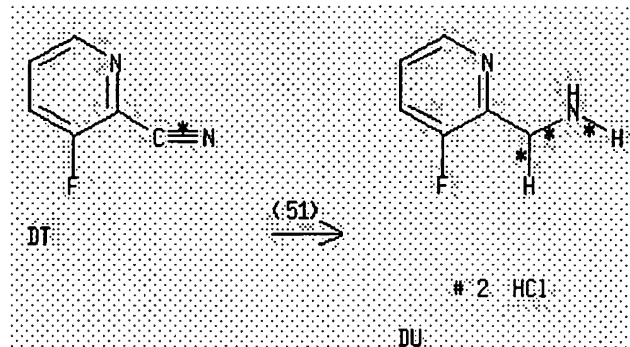
RX(6) RCT W 38180-46-0  
 RGT AB 1333-74-0 H2, AC 7664-41-7 NH3  
 PRO AA 500305-98-6  
 CAT 7440-02-0 Ni  
 SOL 64-17-5 EtOH  
 CON 5 hours, 1 atm  
 NTE Raney nickel used

RX(6) OF 261 ...W ==> AA...



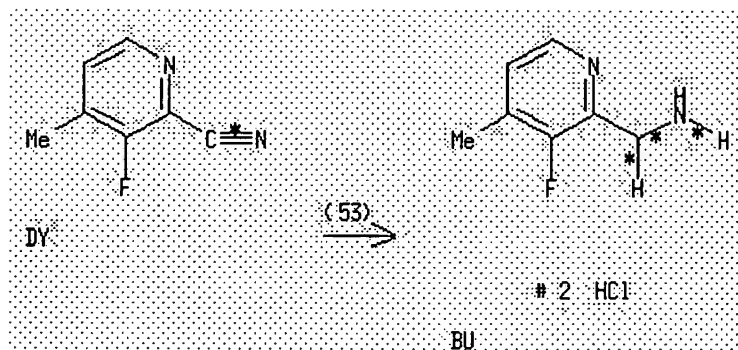
RX(6) RCT W 38180-46-0  
 RGT AB 1333-74-0 H2, AC 7664-41-7 NH3  
 PRO AA 500305-98-6  
 CAT 7440-02-0 Ni  
 SOL 64-17-5 EtOH  
 CON 5 hours, 1 atm  
 NTE Raney nickel used

RX(51) OF 261 DT ==&gt; DU



RX(51) RCT DT 97509-75-6  
 RGT I 7647-01-0 HCl, AB 1333-74-0 H2  
 PRO DU 312904-49-7  
 CAT 7440-05-3 Pd  
 SOL 64-17-5 EtOH, 7732-18-5 Water  
 CON 16 hours, 40 psi

RX(53) OF 261 DY ==&gt; BU...



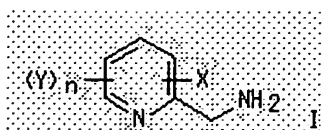
RX(53) RCT DY 312904-99-7  
 RGT I 7647-01-0 HCl, AB 1333-74-0 H2  
 PRO BU 312905-00-3  
 CAT 7440-05-3 Pd  
 SOL 64-17-5 EtOH, 7732-18-5 Water  
 CON 16 hours, 55 psi

L16 ANSWER 4 OF 4 CASREACT COPYRIGHT 2006 ACS on STN

GI

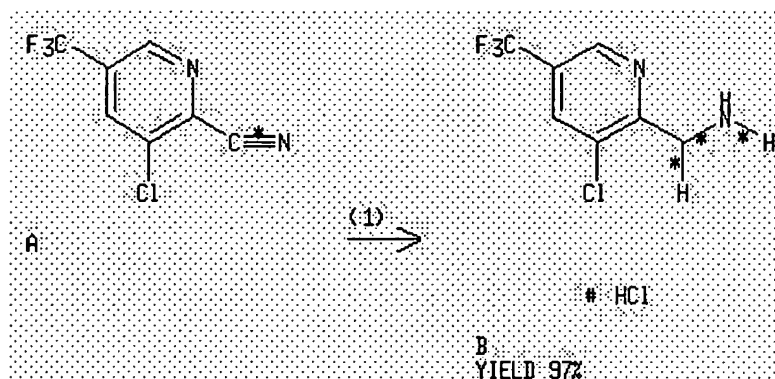
References

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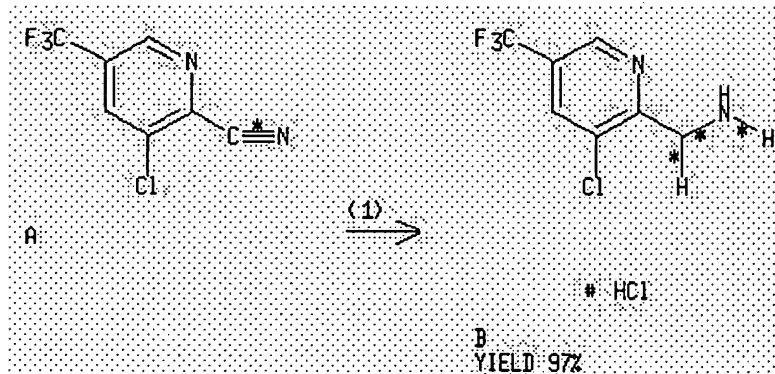
AB Title compds. (I; X = halo; Y = halo, haloalkyl, alkoxy carbonyl, alkylsulfonyl; n = 0-3) were prep'd. by catalytic hydrogenation of the corresponding 2-cyano derivs. Thus, 3-chloro-2-cyano-5-trifluoromethylpyridine (prepn. given) was hydrogenated in MeOH over Pd/C contg. HCl at 1 atm. to give 95-97% 2-aminomethyl-3-chloro-5-trifluoromethylpyridine hydrochloride.

RX(1) OF 1 A ==> B



RX(1) RCT A 80194-70-3  
 RGT C 1333-74-0 H<sub>2</sub>, D 7647-01-0 HCl  
 PRO B 326476-49-7  
 CAT 7440-05-3 Pd  
 SOL 67-56-1 MeOH

RX(1) OF 1 A ==> B



RX(1) RCT A 80194-70-3  
 RGT C 1333-74-0 H<sub>2</sub>, D 7647-01-0 HCl  
 PRO B 326476-49-7  
 CAT 7440-05-3 Pd  
 SOL 67-56-1 MeOH

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